

Multiple Impact Therapy for Learning Problems

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*A Project at the Barrio
Comprehensive Child Health Care Clinic
San Antonio, Texas*

Final Report for 1975-1978

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FINAL EVALUATION REPORT
FOR 1975-1978

MULTIPLE IMPACT THERAPY
FOR LEARNING PROBLEMS

(With Emphasis on The Third Year of Operation)

OF

THE BARRIO COMPREHENSIVE CHILDREN'S HEALTH CLINIC
SAN ANTONIO, TEXAS

Final Revision Prepared June 1979

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SAN ANTONIO, TEXAS

EXECUTIVE SUMMARY
MULTIPLE IMPACT THERAPY PROGRAM OF
THE BARRIO CLINIC

This is a report of a project conducted at the Barrio Comprehensive Health Care Center on the west-side of San Antonio, Texas, which was designed to determine the feasibility of low cost treatment services for children found to have moderate developmental lags (primarily in language) or severe reading lags during the screening of low income children at a neighborhood health clinic.

The project was financed through funds provided by the Hogg Foundation for Mental Health to the Texas State Department of Human Resources who, in turn, obtained a three-to-one match from the Health Care Financing Agency under Section 1115 of the Social Security Act.

The Multiple Impact Therapy program received referrals of the medical screening clinic into its three programs described below based on multiple failure of the Denver Developmental Screening Test (DDST) for children under age six and the reading portion of the Wide Range Achievement Test. The three programs included:

- Infant Stimulation (children age one to 24 months)
- Preschool (age two to five years)
- Educo-Therapy (5th and 6th grade children)

The infant stimulation program evolved over the three years but basically utilized Foster Grandparents and other senior citizens from the same community to teach the mother (in the mother's home) ways to help the child develop through verbal stimulation and playing with selected toys in a certain way.

The preschool children participated in a program having a combination of home visiting and onsite activity to help improve English and Spanish language development in preparation for school entry.

The Educo-Therapy youth came to the Barrio Center twice a week and had a combination of individual tutoring and recreation therapy.

An attempt was made to conduct pre- and post-testing of experimental and control group children to determine the impact of the project (the methods evolved over the three year period). In the third year of project activity, the determination of which children were to be in the experimental group and the control group occurred after recruitment for program participation to ensure experimental and control group comparability. The data collected and the information available about each of the program components in the third year of project activity are presented in the report and summarized in Figure 7-1 of Chapter 7 and other parts of the report summarize the results of the first two years. Chapter 7 contains the major conclusions.

The Barrio clinic itself needs to continue to have a program which provides retesting, referral, and follow-up for preschool and school-age children who score low on the Denver Developmental Screening Test. However, further investment in treatment programs at the clinic should await developments of further research to be conducted under an increased budget in a research effort. Although the sample sizes are quite small, the experiences of conducting the project and the availability of a control group suggest certain directions that programs concerned with the developmental component of child health in a bilingual low income population should consider. These recommendations result from the conclusions stated in Chapter 7 and are categorized by the topic area of recruitment, staffing, program impact, and needs for future research.

Recommendations concerning recruitment

1. Programs wishing to provide services to low income Mexican American children in the area of developmental growth (particularly language and reading ability) need to allocate between \$40 and \$60 per child expected to enroll based on the experience in the Barrio of San Antonio, in order to encourage children who need the services to enroll for the services. Sufficient professional staff time needs to be allocated (included in the \$40-\$60) to allow the staff participation necessary to convince parents of the need for the program. At least three times the number of enrollees expected will probably have to be contacted to get the volume of participation required.

2. Drop-out rates can be reduced by accepting first, children from families who own or are buying their own homes, since this will result in less mobility out of the service area.

Recommendations concerning staffing

1. A low cost treatment program (one-fourth to one-half the cost of full-time day care) can be operated in the Barrio, but the funding needs to be sufficient to hire well-trained supervisors for each age group who have enough time to carefully plan and document curriculum and conduct weekly in-service education. At least \$15 per hour of therapy is needed to cover direct treatment and administrative costs.

2. In funding or budgeting for a developmental treatment program, care is needed to avoid underestimating the needs for space--especially for staff offices and parent and staff classrooms located away from the areas where the children play.

Recommendations resulting from measurement of program impact

1. Although the measurement of program impact in the developmental field is only in the early stages of development, the data presented in this report creates serious doubt about the effectiveness of low cost intervention programs among low income Mexican American infants through home visiting by foster grandparents. However, additional research is needed, utilizing control groups in a larger population base along with increased supervision of the foster grandparents and a more refined curriculum than could be developed during the time of the project.

2. While costing approximately one-fourth of what full-time day care would cost, preschool children aged four and five showed some gain in school readiness skills as a result of the preschool program of home visiting and center attendance for two to three hours per week. Additional studies should be encouraged prior to widespread replication due to questions about the validity of the test as an instrument for measuring change in overall school readiness.

3. Reading programs for ten to twelve year old children with intensive individualized instruction, incentives for staying with the program, and repeated testing for evaluation purposes deserve further demonstration for Mexican American children both in the schools and in alternate environments, but the time of treatment needs to be greater than six months to determine whether or not additional and more intensive work can help improve passage comprehension as well as word attack.

4. The relatively small amount of measurable program impact as a result of six months treatment, the tendency for some parents whose children are not developmentally delayed to want a day care type experience for their children, and the tendency for the staff to want to work with those children who are "cute" and respond well to them means that existing programs serving low income children should undergo occasional pre and post testing (perhaps with control groups) to insure that funds are being spent productively when the purpose is improved school readiness or school performance in a disadvantaged population.

Recommendations concerning future research directions

1. Additional field laboratories for developmental assessment and treatment are needed which are located in low income areas and have a strong evaluation component with well designed control groups and at least five years guaranteed funding. The funding should be jointly sponsored by Health Care Financing Agency (HCFA) and the Office of Education since HCFA has responsibility for ensuring treatment in the EPSDT program, but the actual treatment programs are more educational in nature.

2. More research is needed to establish relevant and clinically useful developmental tests which are appropriate to each of the major age groups.

3. Control groups, while very difficult to achieve without consternation in the community are needed, once the delivery program is adequately refined because many of the children in the control group made gains on their own without treatment. Control groups are necessary to validate the benefits of the treatment process before massive amounts of money are spent. It has been found that a child belonging to a control group for developmental education would not have any substantial social risks.

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CHAPTER 1

THREE YEAR MIT PROGRAM DEVELOPMENT, CURRICULUM, AND COSTS

Initial Funding

In July, 1972 the Barrio Comprehensive Child Health Care Center (BCCHCC) obtained funds from the Social and Rehabilitation Service (SRS), Department of Health, Education and Welfare to explore approaches to the delivery of Early and Periodic Screening, Diagnosis and Treatment (EPSDT) services to low income Mexican-American children through a neighborhood health center concept. The three-year grant award from SRS was the end-product of a search for funding for a children's clinic in the west side of San Antonio that was begun in 1971. The search for funds was led by members of the Commission for Mexican-American Affairs (an agency of the San Antonio Archdiocese of the Catholic Church) and other persons vitally interested in providing personal preventive health services. A diphtheria epidemic which resulted in 200 hospitalizations and four deaths, with cases concentrated on the west side, lent urgency to the search. Community support for a clinic was furthered through the establishment of an advisory board of representatives of the health and social services agencies serving the Mexican-American community.

With SRS financing, the BCCHCC was eventually located in a renovated one-story brick structure (formerly a church) in the middle of the lowest income neighborhoods in west San Antonio. In the ten census tracts which define the Center's catchment area, approximately 93% of the population has Spanish surnames. The 1970 census reported median family income in these

tracts ranged from \$2,482 to \$6,339 and median years of education for persons aged 25 years or older ranged in the census tracts from 4.3 years to 7.3 years. Children under 14 years of age accounted for 35% of the estimated 93,000 persons in the ten tracts.

The Center is not only located in the west side community, but is also operated and staffed by members of that community. A sick clinic, mini-buses, community aides for outreach and follow-up, a physical exam given by a pediatrician after a nurse pre-screen (which includes vision, hearing, lab, and developmental testing) and a friendly atmosphere provided by staff indigenous to the community, are used to overcome any alienation and skepticism toward preventive health services.

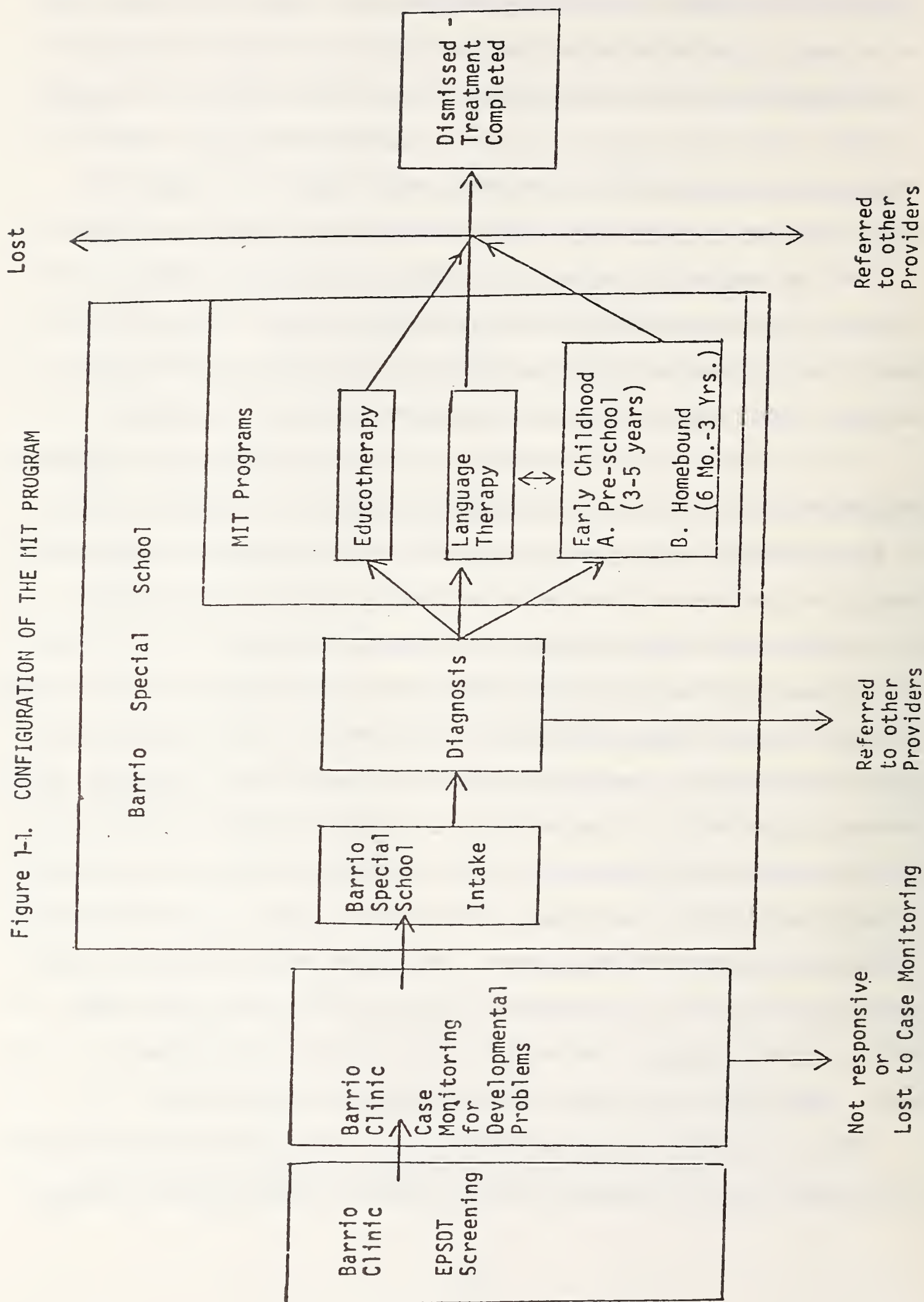
The major emphasis of the BCCHCC during its first three years of existence was medical screening and treatment as well as provision of ambulatory care for non-emergent acute health problems. As a part of the screening program, the results of screening and the extent of related treatment was tabulated with the use of computerized record system developed by the Health Services Research Institute (HSRI) at the University of Texas Health Science Center at San Antonio. The tabulation from this data system showed that approximately 5% of the 2,500 preschool children screened per year had failed the Denver Developmental Screening Test which was administered by community aides either in the child's home or in the clinic. Also 30% of the 1,000 children over age 6 screened per year failed the reading portion of the Wide Range Achievement Test which was administered at the Clinic by scoring at least two grade levels below their actual grade in school. The data system tabulations also showed that of all the types of conditions referred, the dental and developmental (and reading) were least likely to show for treatment. Therefore, during the third year of funding by SRS, a bilingual clinical psychologist,

two part-time language and speech specialists and a community aide was added to the budget in order to further diagnose children with possible developmental lags identified at screening and to assist these children in getting treatment from preschool and other programs funded by the school. Three problem areas were discovered during this time. First, it was found that waiting time for treatment was several months and no treatment at all was available for many of the children unless they were labeled as mentally retarded. Second, preschool programs funded by the school district were located too far from home for those mothers without transportation to walk each day. Third, there was virtually no program available for infants.

The SRS funding ended in June 1975 but the Robert Wood Johnson Foundation provided support for continuing the medical program only. The Hogg Foundation for Mental Health provided the matching funds for a Section 1115 grant to the Texas State Department of Human Resources, who in turn contracted with the Barrio Clinic to operate a program of developmental treatment for (1) infants (called Homebound Program or Infant Stimulation), (2) for preschool early childhood education (primarily language therapy), and (3) for 5th and 6th grade children (called Educotherapy). The entire project was titled the Multiple Impact Therapy program. It included a program of intake and diagnosis after the clinic staff had ensured that a child under age 6 had twice failed the Denver Developmental Screening Test (DDST) in two or more areas of testing (gross motor, fine motor, language and personal-social), or that a child age 6 and above had scored two years below their grade level according to the Wide Range Achievement Test (WRAT). The MIT included a treatment program--called the Barrio Special School. The relationship to the clinic is depicted in Figure 1-1.

Other private foundations provided matching fundings for the Barrio Center's use to get Section 1115 innovation funds through the State Department of Human

Figure 1-1. CONFIGURATION OF THE MIT PROGRAM



Resources. These funds were used for paying the community aides who did outreach and follow-up, and for some limited dental treatment and prevention. This was called the Community Health Assessment Program. During the time of the MIT project, then, there were three operating entities shown in Figure 1-2: the Medical Clinic, the Community Health Assistance project, and the MIT program.

The Department of Human Resources and the HEW were interested in the MIT project because the Early and Periodic Screening, Diagnosis and Treatment (EPSDT) program of the medicaid agency was conducting developmental assessments and were, therefore, interested in learning about new ways to deliver developmental treatment services for problems found at screening at the least possible cost. The Hogg Foundation was interested in improving the mental health of high risk populations and saw the program as a way to work preventively toward improving school readiness and school performance which should mean less frustration on both the part of the parents and the children.

First Year Implementation of the MIT

Since the existing Barrio Center clinic space was completely used for the medical clinic and the community aides, an old army barracks building was obtained to serve as an office and classroom for the MIT program.

The first year's treatment activities were carried out principally by students and VISTA workers assigned to the Barrio, and foster grandparents (for the infants). The foster grandparents were under the supervision of an early childhood specialist (associate degree) who had been trained in a special program at Incarnate Word College of San Antonio. The entire program was under the direction of a person with a masters degree in education. Figure 1-3 summarizes the treatment modes utilized in each of the major

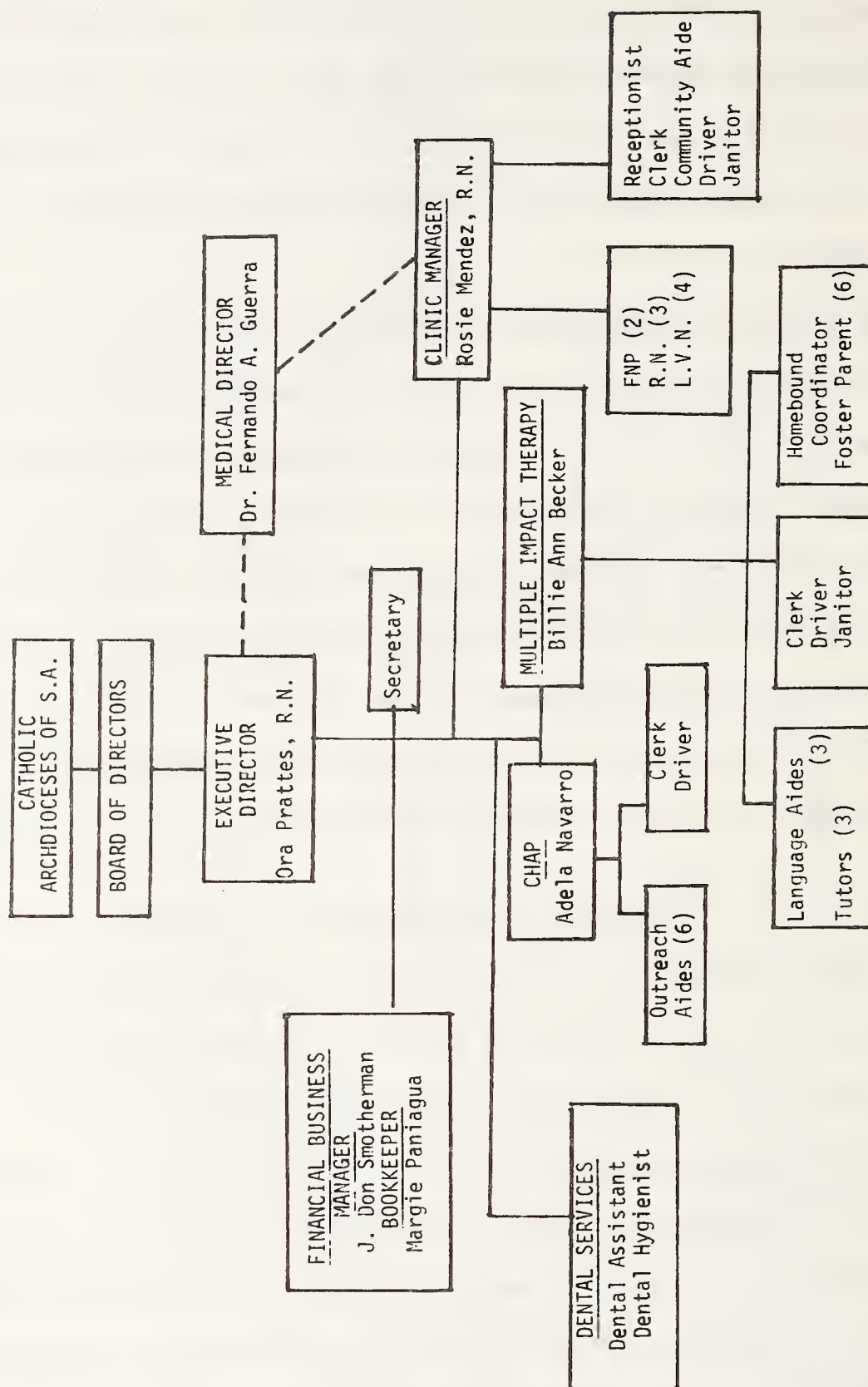


Figure 1-2. ORGANIZATION CHART OF THE BARRIO COMPREHENSIVE CHILD HEALTH CENTER DURING THE TIME OF THE MIT PROJECT JULY 1975 THROUGH JUNE 1978.

programs and the findings. The preschool and homebound (infant) programs involved the MIT staff working with the children twice per week for 2 to 2 1/2 hours per session and the Educotherapy involved 3 hours of involvement per week (2 sessions and 1 1/2 hours each). The only group designed with therapy variations was Educotherapy which included (1) small group reading tutor sessions (2) a combination of reading and recreation and (3) recreation only. The findings which were reported in the first year's report are included as Appendix A but will be summarized in the following paragraphs.

Since the first year represented a start up year, only \$3,000 was allotted for evaluation. Therefore, the project staff did the pre and post testing of each group and HSRI used the results to write an evaluation report. The findings were as follows:

- Children in the homebound and preschool groups had problems primarily in language, as reflected by the Denver Screens (which were given in Spanish when appropriate). More than half of those children who were low in language improved. However, since there was no control group, the gains may have been due to normal maturation.
- The boys in Educotherapy improved their reading level as shown by the Woodcock Reading Mastery Test but the average lag (actual grade minus reading level grade) did not change (from an average of 3.6 years behind when the boys were in 5th and 6th grade). Those boys in the group getting a combination of reading tutoring and recreation improved more, but the difference was not statistically significant.
- Boys in Educotherapy with higher self concept were more likely to improve in reading, and boys who were further behind were less likely to improve.
- Some children were admitted to the program even though they had no lag.
- Some of the Denver Developmental tests were not properly scored by the clinic staff.
- The treatment program was being conducted, but there was no written documentation of the treatment plans or concepts for review.

Figure 1-3
SUMMARY OF THE MIT IMPLEMENTATION AND FINDING DURING YEAR 1

	<u>Educo-Therapy</u>	<u>Preschool</u>	<u>Homebound</u>																												
Program Aspects	Reading tutoring & recreation therapy for elementary aged boys.	Play therapy at project for children 3 - 6 years.	Play therapy at home for children age 0 - 3.																												
Referral Basis	Failure of WRAT	Failure of two or more areas on Denver, or by parent's request.																													
Treatment Modes	Group A: Small group reading tutoring 3 hours per week. Group B: Small group reading tutoring (1 1/2 hours per week) plus recreation therapy (1 1/2 hours per week). Group C: Group recreation session (3 hours per week)	2 sessions per week, 2 1/2 hours each.	2 sessions per week, 2 hours each.																												
Therapy Staff	A--3 Vistas ¹ , 2 St. Mary's students. B--1 Vista, 3 St. Mary's students. C--1 Part-time tutor (Supervised by Masters Degree level education professional)	3 Vistas	Foster grandparents, early childhood specialist																												
No. Children enrolled during study period	A--17 B--16 C--18	26	12																												
Pre- & Post-test Scores (Avg.)	<table border="1"> <thead> <tr> <th></th><th>A</th><th>B</th><th>C</th></tr> </thead> <tbody> <tr> <td>Self-concept</td><td></td><td></td><td></td></tr> <tr> <td>Pre-test</td><td>47.6</td><td>54.4</td><td>53.0</td></tr> <tr> <td>Post-test</td><td>53.9</td><td>55.5</td><td>54.4</td></tr> <tr> <td>Reading lag</td><td></td><td></td><td></td></tr> <tr> <td>Pre-</td><td>3.6</td><td>3.7</td><td>3.7</td></tr> <tr> <td>Post-</td><td>3.6</td><td>3.6</td><td>3.7</td></tr> </tbody> </table>		A	B	C	Self-concept				Pre-test	47.6	54.4	53.0	Post-test	53.9	55.5	54.4	Reading lag				Pre-	3.6	3.7	3.7	Post-	3.6	3.6	3.7	Denver (Sectors passed) Pre-test: 3.23 Post-test: 3.82	Denver (Sectors passed) Pre-test: 3.00 Post-test: 3.55
	A	B	C																												
Self-concept																															
Pre-test	47.6	54.4	53.0																												
Post-test	53.9	55.5	54.4																												
Reading lag																															
Pre-	3.6	3.7	3.7																												
Post-	3.6	3.6	3.7																												
<u>Program Costs</u> Cost-efficiency Cost per child enrolled	A--\$297.15 B--\$144.83 C--\$156.55 Three month economic costs.	\$295.08 Four month economic costs.	\$788.37 Four month economic costs.																												
Cost per hour of therapy per child	A--\$ 17.73 B--\$ 8.52 C--\$ 16.58	\$ 7.64	\$ 16.89																												
<u>Cost-effectiveness</u> Cost per child improved in self-concept	A--\$459.22 B--\$331.02 C--\$313.09																														
Cost per child with reduced reading lag	A--\$721.64 B--\$331.02 C--\$313.09																														
Cost per child with fewer problems on Denver		\$852.42	\$2,366.13																												

¹Vista's Background: College graduates, non-bilingual, non-Texans, two have degrees in education.

St. Mary's Students Background: Undergraduates working on B.A. in Education, local, bilingual.

Finally, although the preschool and Educotherapy children who worked with VISTA tutors seemed to have made gains, the difficulties in supervision of these volunteers (since they were very demanding of attention and somewhat independent) lead the Barrio Center leadership to request that in future funding, the VISTAs be replaced by part-time staff paid by the clinic.

Due to the findings of the first year, the second year's plan called for an upgraded diagnostic capability, written curriculum, establishment of an admissions committee to determine which children could be admitted to or discharged from the MIT program, focused admittance to Educotherapy only for children who have smaller reading lags and included recreation as an integral part of the tutoring program. Also, it was decided to place more emphasis on the parent-child interaction of infants and preschool children and to achieve a greater involvement of mothers in the stimulation of their children. A number of studies (Tulhin and Kagan, 1972; Bayley and Shaefer, 1960; Hess and Shipman, 1965) have shown that parents of young children in lower class families do not provide the same type and amount of verbal interaction and cognitive stimulation that is provided in middle class families. Phyllis Levenstein's Verbal Interaction Project and the Mother-Child Home Program (MCHP) had demonstrated that large I.Q. gains could be made by young children in poor families through a program that teaches the mother how to interact verbally with her child.

Finally the HSRI staff became more involved in establishment of treatment and control groups for each program and in the conduct of the pre and post testing.

Implementation of the Second Year's Program

The second year's program will be described according to program.

Infant Stimulation Program

In the Infant Program, foster grandparents were assigned to work with a mother and child in their homes on a weekly basis (1 1/2 to 2 hours each session). Following the developmental assessment of the child, a home assessment was made to determine what toys, equipment, and materials were available. A Developmental Form was then prepared for each child outlining the goals for the child and listing his strengths and weaknesses. Finally, for each home visit a lesson plan and observation report was completed specifying the goal of the lesson, materials needed, and general observations on the mother and child. (See Home Inventory Form, Child's Developmental Form, and Lesson Plan and Observation Report in Appendix B, C, and D, respectively.) It was learned from the first year's program that the foster grandparents should go to the homes in teams of two with one member entertaining the siblings while the other worked with the mother and the child.

Lesson plans for each home visit were developed by the Infant Program director to emphasize the use of materials that were either found in the home, could be made by the Foster Grandparents, or could be purchased at low-cost. Home kits were prepared for the lower age groups while the materials for older infants and toddlers were inexpensive items commonly found in the home. The home kits for infants five to 24 weeks of age and 12 to 32 weeks of age included the following:

Infant 5 to 24 weeks old:

- Infant seat
- One rattle
- One suction cup rattle
- One piece of plastic - 24 " in length
- Five clothespins
- Five puffs of colorful yarn

Infant 12 to 32 weeks old:

- One rattle
- Two blocks - 2 to 3 cubic inches
- Crib activator with ringing bells and attached yarn
- Rolly-polly toy which makes sounds when hit
- Push-pull toy that makes noise
- Musical top
- Plastic straws
- Can with hole and cut-up sponges

Examples of four lesson plans using materials from the kits are presented below:

Lesson Plan for Suction Cup Rattle

Purpose: Visual-motor, eye-hand coordination.

Ask mother to place rattle on flat surface near baby. Have her hit the rattle to make it make noise, then to show baby how to perform task.

Have mother praise baby for his attempts.

Record all observations.

Lesson Plan for Rolly-Polly Toy

Purpose: Eye, Hand or Visual Motor Coordination.

Materials: Rolly-polly toy that makes noise. Musical top or spinning top.

Have mother place baby on floor (seated in infant seat). If baby has a high chair, this task can be done on tray.

Have mother show baby how to hit toy gently to make noise.

Record all observations.

Have mother show baby how to spin top. Have her place his hand on top and spin top. Praise all his attempts.

Record all observations.

Lesson Plan for Blowing Bubbles

Purpose: To begin weaning from a bottle. To develop sense of accomplishment and visual-motor perception.

Materials: One or two short plastic or paper drinking straws. Small paper cup with water. You can add 1-2 drops of food coloring.

Step I - Have mother sit infant comfortably with glass of water and straw in front. Ask mother to demonstrate how to use it. Blow into water. Have infant try to do it.

Record all observations.

Step II - After infant has mastered the straw, do same activity with soap bubbles and wire ring.

Step III - Place small amount of milk or soda in small paper cup. Cut straw into two pieces. Have infant attempt to drink from the straw. Make sure that infant has mastered step I & II before attempting step III.

Record all observations.

Lesson Plan for Language

Purpose: To develop language skill, develop simple sounds, turns to voice, locate sounds.

Materials needed: Infant seat/a rattle

Step I - Tell mother to repeat sound that the baby makes (such as ah, eh, uh). When diapering baby, mother may say "ah it feels so good" to have a clean diaper. Have mother talk to baby as much as possible to encourage making simple sounds.

Record observations.

Did mother talk to baby when infant started making sounds?

How did mother help baby make the sounds?

Step II - Have mother put baby in infant seat. Mother can talk to infant until he starts to babble and coo. Have her stroke him in approval. Tell mother to talk to baby at all times. When she is close, have her encourage baby to make babbling sounds.

Record observations.

Did mother interact with baby?

Did child get stimulated by mother to the point of babbling or cooing?

Step III - Have mother place child in infant seat. Tell mother to first talk to child directly, then have mother move to the left side and then talk to the child, seeing if child turns to her voice.

Repeat two or three times.

Record observations.

Did baby respond to mother's voice?

Did he turn to the voice?

Did she stroke the baby while doing this task?

Step IV - Have mother seat baby in infant seat. Tell mother to put baby where he can see all around him. Have mother move and jingle a rattle. See if baby tries to locate sound. Change to other objects (pans, moving, shutting doors, talking). Do this about 10 minutes at a time.

Record observations.

Did baby look around to see where sounds were coming from?

Was sound loud enough for child to hear?

Did mother stroke infant?

The following are examples of lesson plans that are presented to older infants and toddlers. More emphasis is placed on language development and concept development for the older age groups.

Title of Lesson: Language

Age: 6-12 months

Materials: Mirror

Purpose: To develop language skills, clap hand on request, 2 word expression (beside Mama, and Dada), imitate speech sounds, indicates wants, respond to own name.

Step I - Tell mother to set baby on her lap. Take mirror and put it up to the baby so he can see himself. Let him look into the mirror. Tell mother to tell baby, "Who is that", pointing to baby. Put mirror to the side and then back again so he can see himself again. Talk to baby telling him "Who is this". Encourage the baby to vocalize.

Record observation.

Did baby vocalize at his image?

Step II - Tell mother to tell baby "Mama". See if baby can say the word (even though he doesn't know the meaning). Now say "Dada". See if he will say them. Say "Mama" "Dada".

Was baby alert?

Did he try to pronounce the words?

Step III - Tell mother to sit baby on lap or infant seat, and then to say "Mama", pointing to herself. This can be done when father is home also. Point to Father and say "Dada" then again point to herself and again say "Mama". Mother can always repeat words when doing things for him. If child is unable to say words, repeat Step II again.

Record observation.

Was child able to point to mother or father when asked?

Did mother talk to the baby?

Did she encouragement to baby when doing this lesson?

Step IV - Tell the mother to talk to baby when she gives them water, milk, saying the word slowly so child can see mother moving her lips. See if child will try to imitate her speech sounds. Start with two words increasing one word at a time. Always say words clearly and directly to the child.

Record observation.

Did mother say words slowly?

Did she give infant a chance to imitate her speech sound?

Did infant try to imitate mother?

Title of Lesson: Language

Age: 1-2 years

Materials needed: five 2 inch blocks, 4 medium coffee cans

Purpose: To develop language skills

Step I - Have mother start with two or three blocks. Let mother demonstrate the task. Place them in a line on the floor. Let child push them around. (He will try to keep them straight.) He will soon notice that they do not stay together. He will try again. Have mother encourage child to try (by talking to him while doing the task).

Record observation.

Did mother help child to push the blocks around?

Did child pick up the blocks when told to push them?

Was he able to understand what mother wanted?

Step II - Start by telling mother to take two blocks and set them on her lap. Demonstrate how to put one on top of the other. Talk to child and explain what you are doing (such as put this block on top of this (block)). Let him try on his own if he is able to put one block on top of the other and one more, still telling him what you are doing. If blocks fall down, encourage child to do it again.

Record observation.

Did the child put blocks together?

Was mother talking to him when she was doing the task?

Was he able to stack more than three blocks (to build a tower)?

Did child talk to mother saying the words (blocks on top one)?

Step III - Have mother select one set of cans and one of blocks. Let the child stack the blocks and cans. Then ask him to roll the cans. (Demonstrate first.) Then ask him to roll the blocks. He will notice that the blocks will not roll. Let him try again. Explain to him how the cans roll and the blocks do not. At the end of period have the mother tell child to "put all the blocks over here", "put the cans here". Say "this is a can" and "it is round and it rolls". Give praise when task is done.

Record observation.

Did child work more with the blocks or the cans?

Did mother talk to him and explain what she was doing?

Did mother show him the round can and how to roll it?

Did he stack blocks and cans together.

Did mother ask child to repeat the words "block" and "can".

Step IV - Tell mother to show child how to put different shape blocks in stacks. Start with the big one, little one, small one. Now let him try. Always tell him to put the big one on the floor, now put the little one on top of the big one. The small one on top of the little one. Let child try to do it. Mother may hand block telling child how to stack them. Give praise when stacking is done.

Record observations.

How did child handle the blocks?

Was he able to do the task after demonstration.

Was mother talking to child telling him what she was doing?

Did child do the task after demonstration?

Did mother interact with child?

Did he say "big", "little" when stacking the blocks.

Title of Lesson: Fine Motor/Adaptive

Age: 2-3 years

Materials Needed: Set of large pull beads and large string beads with big holes and laces-small coffee can.

Purpose: To develop eye, hand coordination.

Step I: Tell mother to put string of beads on the table. Have mother pull the beads apart. (She will have to put them together and show child how to pull them apart.) Have mother verbalize with child, giving praise when tasks are accomplished.

Record observation: Was child able to pull beads by himself? Did he use both hands when pulling the beads?

Step II: Have mother put pull beads in a row. Show the child how to pull the beads and put them together. (Child may have difficulty in putting them together.) Show child how beads connect with each other. Give praise and reinforcement if task is done or attempt was made.

Record observation: Did child try putting beads together? Did mother encourage child if task wasn't done? Was mother able to give praise and reinforcement when needed? Did she encourage child to do activity?

Step III: Have mother place beads and laces on the table. Tell mother to take one bead and put on the string. (Beads should be big and easy to handle.) String one by one until you have three on lace, increasing one bead at a time. Have child try it (have mother hand child one bead at a time until he has strung three) adding a bead each time he accomplishes the task.

Record observation: Was child able to follow simple command? Did mother interact with child while stringing beads?

Step IV: Have mothers place large string beads beside bowl and show child how to place beads into bowl by bunching them up or rolling them up together in the bowl.

Record observation: Did child respond to instructions? Did mother give encouragement to the child? Did child handle beads with one hand or two? Did he pull beads out of string first, then put them in the bowl?

In addition to the home visit lessons, classes were held for the mothers at the Center twice a month for two hours each. The classes are designed to stimulate the mother's interest in teaching her own children. Discussions were held on child rearing practices and techniques, health, nutrition, safety, etc., and the mothers were taught to make toys and other materials that can be used to stimulate their children. The supervisor of the aides reported that the foster grandparents (called Infant Stimulation Aides ISA) had difficulty in working with the mother rather than directly with the children. In-service training was offered in this regard and the ISAs were asked to report about their visits--with advice offered to help them develop an awareness of their role in helping the mothers.

Preschool Program

Two methods of intervention were employed in the Preschool Program. Weekly visits were made by teaching aides, using the same format as the Infant Program, and preschool classes were provided at the Center three days a week.

During the home visit the teaching aides discussed play therapy techniques with mothers, provided demonstrations of interaction techniques, and encouraged the mother to interact with her child on a regular basis. Lesson plans presented by the aides at each home visit were selected by the program supervisor on the basis of the child's progress in the preschool classes.

Each school day was divided into one hour of structured learning activities and one and one half to two hours of fine motor activity, free play, dance, and field trips. The class time that was devoted to structured learning activities was divided into four 15-minute periods. Children spent each period in one of four learning centers in the classroom where they received instruction from a teaching aide. At the end of each 15 minute period the children were moved

from one learning center to another. The four learning centers provided activities in language and concept development, pre-math skills development, perceptual-auditory development, and human ecology. Examples of lessons provided in the learning centers are presented below. The lesson plans were developed by the coordinator of the MIT Project.

Title of Lesson: Language and Concept Development

Materials Needed: 2 toy telephones

Purpose: To teach child his full name

Activity: The teacher gives one telephone to a child and keeps the other. She picks up her phone and asks the student to pick up the receiver on his. Teacher says, "Hello, this is (Gloria Hernandez). Who are you?" The child will answer, "This is Laura." The teacher asks, "Laura who?" If the child does not answer her last name, the teacher asks, "Is this Laura Lima?" The teacher says, "How are you Laura?" After Laura replies, the teacher asks, "May I speak to Rocky Garcia?" The phone is passed to Rocky.

Move the phone around so the children will not have to wait too long for their turn. The object is to get them to say their full name, but this may not be accomplished the first lesson. If all the children know their full names, or learn it quickly, the phone can be used to encourage the children to learn each other's name. Examples: "Laura, did Adrian come to school today?" "Rocky, who is sitting next to you?" "Nellie, please pass the telephone to Adrian."

Title of Lesson: Language and Concept Development - Self Awareness

Materials Needed: None

Purpose: Teach the children the parts of their bodies: head, arms, legs, hands, nose, and eyes.

Activity: Children sit in a circle on the floor. Teacher says, "Today we are going to play a pointing game. When I say a word, the name of a part of your body, please point to that part. Teacher begins by saying, "Your head. Point to your head." Praise if correct. If all children do not point to correct body part, teacher models and says, "Head. This is my Head." Continue until all parts are named.

If child accomplishes this, teacher asks each child to name a part and all the children point to that part. Or teacher can point to a part of a child's body and ask him to name it.

Title of Lesson: Human Ecology - Wind

Materials Needed: Kite, rags (children can assemble a tail).

Purpose: Child will understand concept of wind.

Activity: On a windy day during the spring months a kite can be taken to the playground. The teacher can explain how the wind takes a kite up into the air.

Title of Lesson: Perceptual/Auditory Development

Materials Needed: Fruit--apples, oranges, grapefruit, pears, bananas, grapes, limes.

Activity: Ask children to find yellow fruit, green, etc. Play game: ask child, in turn, think of a fruit and ask for it by describing it in color and size; another child must hand it to him. Eat fruit for snack.

This lesson is adapted from the Saturday School.

Title of Lesson: Perceptual/Auditory Development - Identify Colors

Materials Needed: Pieces of construction paper of different colors. Blocks of the same colors as the pieces of construction paper.

Activity: Place the pieces of construction paper in front of the children. Shuffle blocks aside. Label the pieces of paper and have the children repeat the names. Have the children match the blocks with the pieces of paper by putting the blocks on top of them. Have them repeat the name of the color as they do this. Ask them to take a specific color of block and match it. The child should repeat the color as he matches it.

This lesson is adapted from the Saturday School.

Title of Lesson: Pre-Math - Counting Objects

Materials Needed: Peg board and pegs, blocks, teddy bear counters.

Purpose: To teach child to count objects.

Activity: Teacher says, "let me hear you all count together from 1 to 10." Children count and if correct, teacher puts the peg board on table. She puts one peg in a hole and says, "This is one peg." She adds another and says, "Two pegs." She adds a third and says, "Three pegs." She removes pegs and as she puts them in hole, models and has children repeat. She then has one child put in pegs, one at a time, and group counts aloud.

Title of Lesson: Pre-Math - Counting to 10

Materials Needed: None.

Purpose: Teach the child to count from 1 to 10.

Activity: Children sit around a table. Teacher tells them they are going to play a counting game. Teacher says "Let's count. Let's all count from 1 to 5. Let's begin." Group counts in unison up to 5. If all succeed, continue up to 10. If all cannot count to 5, teacher models and asks children to repeat.

At the end of the class day the teaching aides evaluated the children's progress in each of the learning centers. The evaluation results were used to select lessons to be presented in the home visits.

Educo-Therapy Program

The reading lags of the children in this program were attributed to either a lack of exposure to English or a need to develop reading skills. Thus, the program was designed to provide intensive language exposure and reading practice. The admission to the program was limited to persons who scored above 74 on the WISC-R due to the findings of the first year which showed increased learning by those who were not as far behind at pre-test time. Children enrolled in the program were divided into small groups of three or four each for tutoring. Children who need English language exposure were assigned to groups in which English language interaction (listening, speaking) is emphasized with reading practice. Children with basic reading skills deficiencies were placed in groups which receive only intensive reading practice. The groups met twice a week for one and one half hours. The program period was four and one half months.

Lesson plans for tutoring sessions were divided into four periods.

1. The first five minutes was devoted to informal conversation in English or Spanish covering topics of interest or direct concern to the children.
2. The next ten minutes was planned for an innovative teaching technique which introduces the child to better listening skills, reading comprehension, following directions, etc. This was usually in the form of a game.

3. The next 20 minutes was planned for a highly structured and tutored period. This period was individualized for children to work alone on a specific area of weakness. The tutor prepared direct strategies for each child and his needs.
4. The next ten minutes was directed as a group activity and usually involved a group reading or discussion of material covered earlier in the lesson.

The materials that are used by the reading tutors are directed at the third, fourth, and fifth grade levels. Most of the materials are small reading books or new games that are either bought or made by the tutors. Some of the reading materials and games are listed below.

1. Sprint Magazine - Designed for 3rd and 4th graders. This magazine includes articles on interesting personalities, character plays in which students participate, and crossword puzzles.
2. Feedback - A scholastic skills reading book with reading and questions on each article.
3. Reader's Digest - Contains various articles on government, economics, interesting people, health, safety, and society.
4. Point 31 Magazine - Contains numerous fictitious stories.
5. Scholastic News Citizen - Contains articles dealing with social studies and also map reading skills.
6. Crossword puzzles.
7. Word Search game in dictionary.
8. Word Making Cards.
9. Scrabble game.

Following the one hour language and reading tutoring sessions, the children participated in planned recreation activities including basketball, kickball, football, and other outdoor activities. The purpose of the recreation was to provide the children with positive social experience in association with the reading tutoring.

The costs of operating the program described above were shown in the 2nd year's evaluation report to be as follows:

Infant Component Quarterly Costs

Personnel Costs

Supervisor, 6 *foster grandparents, 2 community aides, clerk typist, driver/custodian	\$6,765
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Nonpersonnel Costs (includes estimate of overhead costs such as rent and administration)	<u>2,649</u>
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Total Costs	\$9,494
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Number of children enrolled	18
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Cost of child for one quarter	\$ 523
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*Includes wages paid to foster grandparents by the Foster Grandparent Program, even though the clinic made no expenditure for these.

Preschool Component Quarterly Costs

Personnel Costs

Supervisor, 3 developmental stimulation aides, 2 community aides, clerk typist, driver/custodian	\$5,278
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Nonpersonnel Costs (includes overhead costs)	<u>2,061</u>
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Total Costs	\$7,339
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Number of children enrolled	16
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Cost per child for one quarter	\$ 459
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Educo-Therapy Component Quarterly Costs

Personnel Costs

Supervisor, 3 Educo-therapy aides, 1 community aide, clerk typist, driver/custodian	\$4,133
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Nonpersonnel Costs (includes overhead costs)	<u>1,612</u>
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Total Costs	\$5,745
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Number of children enrolled	32
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Cost per child for one quarter	\$ 179
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The evaluation methodologies will be discussed in the next chapter, but there were experimental and control groups for each of the component programs and pre and post testing of each group. The findings of the second year were somewhat guarded for several reasons. The high attrition in the treatment and control groups caused fairly small sample sizes and the method choice of persons for the experimental group meant that randomness of assignment may have been approximated, but was not assured. In the infant group, there was a significant difference between the treatment and control group in that the mothers changed the way they asked their children to do things from more commanding to more showing and coaching; however, this did not prove anything about child behavior.

Unfortunately, it was found that the Bayley Scale of Infant Development was not appropriate for children under age 8 months based on experience of other projects in reliability testing. Also the DDST was difficult to give to infants below age 8 months with high reliability. Therefore, no results were available for infants gains.

The treatment group of preschool children showed differential gains in the developmental age ($p < .1$) due to language, vision, and auditory improvement. The Educo-therapy treatment showed no statistically significant difference from the control group. However, some gains were noticed in the sample in word recognition but not in passage comprehension which indicated that rather than teaching reading, what needed to be taught to 5th and 6th grade children who are behind in reading is basic concept of the English language words and structure before trying to teach reading concepts. This indicated that the treatment time may have been too limited for impact on passage comprehension.

The Third Year of MIT Implementation

Due to the aforementioned problems and findings, a focus of the third year was on better randomization of children and better instrumentation for

measuring true gains of the children in treatment. These will be discussed in Evaluation Methodology Chapter. The other focus was the development of curriculum.

Curricula

A major concern of the two preceeding years was the state of the MIT curricula. Serious questions were raised by consultant reviewers concerning the adequacy of and appropriateness of what was presented to the MIT children. The organization, focus, and conceptual purpose of each component's curriculum were not stated clearly in writing and probably were in need of revision. Accordingly, a goal of the 1977-1978 MIT program was to revise the various curricula, primarily through the use of consultants. Each MIT component's curriculum will be briefly presented, followed by a brief explanation of the third year activities. Each of the following program descriptions was prepared by the MIT coordinator.

Infant Stimulation Program: The programmatic aspects of the infant program was similar to those described for the second year with the exception that the program was limited to children who were 8-12 months of age. For each enrolled student, the following information was collected:

- a. a review of the results of the Clinic physical
- b. a copy of the most recent Denver Development Screening Test
- c. observations from a home visit by the Infant Stimulation Supervisor.

From this, a list of strengths and weaknesses was made. Using these materials and referring to the MIT Infant Program Skills Check List, a list of goals was made for the student--from the simple to the more complex.

Each week the supervisor chose from prepared lesson plans, an activity which addressed one of the goals set for the student. The grandmother used the lesson plan to guide the activities she taught the mother that week.

The supervisor periodically made home visits with the grandmother to observe the grandmother and the mother interaction. She also revised the goals for each student from her observations and the reports from the grandmother.

The HSRI evaluation team attempted for several months to locate and obtain a commitment from an expert in the area of designing infant curricula. The first consultant was contacted in July, but informed the evaluation staff in November that she was unable to continue. A second consultant was then contacted, but she later informed the HSRI team in January that she could not continue at the desired pace. Finally, a third consultant, Lucille Rochs, who had been involved in teaching early childhood development in a local college, was hired in February to evaluate the infant curricula. Her duties included making minor program revisions, as well as supplying HSRI with a thorough infant curriculum analysis (see Appendix E). Mrs. Rochs, praised the potential of the infant program and use of the Foster Grandparents, but also indicated some problem areas which indicated that the program needed some major changes before evaluation should even be attempted. Hindsight showed the evaluation team that this type of consultation should have been sought during the first year of the program before precise measurements were taken.

A review of Mrs. Rochs' analysis showed that she sensed some confusion in the ISAs* concerning their role and goals, and a corresponding lack of complete documentation of the curriculum concepts and precise lessons. This was due to understaffing in the infant program with only one full time person. She suggested three full time persons headed by a person with extensive training and experience in early childhood education. She noticed that the ISA had insufficient space for training and offices, problems in the logistics of transportation, lessons that were too long for effectively holding the child's

*Infant Stimulation Aides -- the senior citizens

and mother's attention, and arrived at the home too early in the morning.

Preschool Program: Prior to, or shortly after enrollment, each preschool student was given a Dallas Preschool Screening Test. The results of the test were posted on the MIT Preschool Program Skills Check List which contained Dallas Test items plus other items. From this initial information, the Preschool Team Leader chose class and/or home visit activities for skills which the students had not mastered. The language stimulation aides, after each home visit, recorded the child's progress as reported by the mother. At the end of each class, the teachers recorded each child's progress on the class activities. This up-to-date recording of skills acquired guided the Preschool Team Leader in her choice of activities to include in each week's activities.

The children in the preschool treatment were divided into three separate age groups to allow the staff to provide an age-appropriate services to the children who were not properly ready for school. Only Group B, who were primarily 4-5 years old, were given both clinic and home visits.

Three consultants from the Intercultural Development and Research Association were hired to evaluate the preschool curriculum. A summary of their report may be found in Appendix F. The existing curriculum and documentation was seen as lacking in several areas. The MIT coordinator acted on the recommendations and modified the curriculum accordingly.

Educo-Therapy Program: An individual curriculum was written for each student based on the results of the following tests:

- a. Wide Range Achievement Test
- b. Language Assessment Scale
- c. Informal Reading Inventory taken from the Handbook in Diagnostic Teaching by Philip Mann and Patricia Suiter.

The curriculum guide noted strengths, weaknesses, and long term objectives in the following areas:

- a. Spelling
- b. Visual discrimination
- c. Auditory discrimination
- d. Oral Reading
- e. Word recognition
- f. Word attack
- g. Handwriting
- h. Reading comprehension.

Each tutor worked 45 minutes with two, three, or four students who had similar skill levels. The final 15 minutes, with the student regrouped, was devoted to oral language development. The objectives were listed from simple to more complex. Once the goals in one area were met, the tutor directed the student activities to another area.

The MIT coordinator originally planned to revise the Educo-Therapy curriculum, emphasizing an English-as-a-Second-Language approach. Due to other activities and demands, this was not accomplished. A consultant was then hired to individualize the curriculum. As a result, by March 1978, a comprehensive reading program was developed for each child. Prior to that date, the children were taught using the previous year's curriculum.

The late development of the Educo-Therapy individualized curriculum prevented the use of an incentive system that was originally planned to encourage the children to stay in the program. Planned incentives included field trips, t-shirts, etc after accomplishing a certain number of goals. The money was instead used to motivate the children to return for the post-testing sessions. As the proposed incentive system was never implemented, the program during the third year was basically similar to the second year's.

In-Service Training

The problem of providing systematic and thorough in-service training to the MIT staff was addressed by developing a new schedule for each component. As a result, the Infant Stimulation Program staff received two weeks of training by the Infant program supervisor prior to the initial home visits. An additional workshop centering on language acquisition skills was conducted by an outside consultant. In a similar fashion, the Preschool personnel attended five workshops on topics ranging from preschool activities to visiting day care facilities that stress bilingual language approaches. The Educo-Therapy program staff received approximately 13 workshops ranging from discussing tutoring techniques to discussing issues involved in implementing the new curriculum.

Any program wishing to rely on paraprofessional staffing needs to plan for a rigorous, and scheduled, in-service training program. If such a program would have been started sooner, greater gains may have been observed in child performance.

Costs during the third year. The budget expenditures for the first quarter of treatment activity in the third year is shown in Figure 1-4. The costs per program component are within \$1,000 of the costs reported for a similar quarter of the second project year. When combined with the units of service shown in Figure 1-5, it appears that the infant program costs about \$600 per active child per quarter, the preschool costs \$150 per active child per quarter, and the educo-therapy \$250 per active child per quarter. These costs are very low in comparison to Headstart and other programs costing \$2,500 to \$3,000 per school year. However, as pointed out in Mrs. Rochs' report, the staff should have been at least doubled to obtain the optimal professionally adequate program.

Figure 1-4

QUARTERLY COST OF MIT PROJECT

	Infant Cost	Preschool Cost A B C	Educo-Therapy Cost
Infant Program Staff	\$ 6,782.40	--- 1,980 ---	1,431.00
1 Infant Supervisor			
3 Senior Citizens			
5 Foster Grandparents			
Preschool Program Staff			
2 Team Leaders			
1 Community Aide			
Educo-Therapy Program Staff			
1 Recreational Therapist			
3 Tutors			
Supportive Staff	2,642.58	2,642.58	2,642.55
1 Coordinator			
1 Clerk Typist			
1 Driver			
1 Driver Liaison			
1 Parent Liaison			
1 Community Aide			
Total Personnel	9,424.98	4,622.58	4,550.58
Non-Personnel			
Mileage	32.73	32.73	32.73
Van Rental	181.08	181.08	181.08
Van Maintenance	127.65	127.65	127.65
Office Supplies	56.60	56.60	56.60
Other Consumables	400.78	400.78	400.78
Office Equipment	79.47	79.47	79.47
Duplication	16.63	16.63	16.63
Telephone	124.20	124.20	124.20
Insurance	53.45	53.45	53.45
Consultants	168.15	168.15	168.15
Unbudgeted Expenses	215.08	215.08	215.08
Total Non-Personnel	\$ 1,455.82	\$ 1,455.82	\$ 1,455.82
MIT Total Cost	\$ 10,088.80	\$ 6,678.40	\$ 6,006.40

Figure 1-5

QUARTERLY CHILD UNIT COSTS PER MIT COMPONENT

	Infant	Preschool			Educo-Therapy
		A	B	C	
Total Maximum Hours of Treatment	400	138	605	750	600
Actual Number of Treatment Hours for Treatment Children Enrolled as of 2/15/78	190	81	371	354	324
Number of Treatment Children Enrolled as of 2/15/78	10	6	11	15	16
Number of all Special ¹ and Treatment Children Enrolled as of 2/15/78	16	9	15	17	24
Total Cost per ² Component	\$10,088.80	\$1,215.68	\$2,431.36	\$2,431.36	\$6,006.40
Projected Cost per Service Hour	\$ 25.22	\$ 8.81	\$ 4.02	\$ 3.24	\$ 10.01
Actual ³ Cost per Service Hour per Treatment Child Enrolled as of 2/15/78	\$ 53.10	\$ 15.01	\$ 6.55	\$ 6.87	\$ 18.54
Cost per Treatment Child Enrolled as of 2/15/78	\$ 1,008.80	\$ 202.61	\$ 221.03	\$ 162.09	\$ 375.40
Cost per Child of all Special and Treatment Children Enrolled as of 2/15/78 ⁴	\$ 630.55	\$ 135.08	\$ 162.08	\$ 143.02	\$ 250.27

¹This figure is derived from all children that have received services in each component, consisting of Treatment and Special cases. Some Special cases were enrolled, even though they did not meet program criteria.

²The cost of Preschool A, B, and C was computed by estimating the amount of services and dividing the total cost by the appropriate percentage. Preschool A = 20%, Preschool B = 40%, and Preschool C = 40% of \$6,078.40.

³These differ from the figures stated above because nearly half had dropped out of treatment by this time.

⁴Some children were allowed into treatment, due to their severe condition, but were not counted in the data collection. These were called special children.

CHAPTER 2

EVALUATION METHODOLOGIES AND PROBLEMS: GENERAL DISCUSSION

This chapter contains a general discussion of the evaluation approach and role, as it evolved over the life of the project and to present aspects of the instrumentation used for the evaluation measures.

First Year's Evaluation

Since the funds were limited for evaluation during the first year of the project, it was decided to determine whether or not gains could be shown by the MIT treatment programs through MIT staff post-test versus pre-test results utilizing the instruments that had been routinely used to identify the children in need of further developmental stimulation due to language and learning lags, with Control groups being added later if potential gains of treatment were shown in the small group served during the first year. The educo-therapy group had designed variations of treatment intensity since there was a larger number of boys involved. The test utilized in the infant and preschool age children for screening in the medical clinic and for pre- and post-testing during the first year was the Denver Developmental Screening Test. This test has four areas: Gross Motor, Fine Motor, Language, and Personal-Social and is for use with children zero to six years of age with age-specific subtests. The subtests which are passed or failed are marked on the scoring sheet, and the age at which a failure indicates a problem is printed on the sheet. The four areas can be summarized in the following way:

Gross Motor: walking, jumping, and catching a ball, etc.

Fine Motor: handling blocks and small objects, etc.

Language: naming body parts, imitating speech, and defining words, etc.

Personal-Social: dressing oneself, interaction with others, and using spoons and cups, etc.

The experience of the first year showed that the DDST was not precise enough to show the detail of change desired by a careful evaluation. It did, however, indicate that half the children scored low in language and that more than half of those improved greatly at the end of treatment.

The children were referred to the Educo-Therapy Program based on the reading portion of the Wide Range Achievement Test. Educotherapy emphasized word recognition, so the Woodcock Reading Mastery Test was used to evaluate the reading level of the children in the Educo-Therapy Program. For the total test and for each of the five subtest areas, a "mastery" score is determined from the raw score. These mastery scores can be translated into grade equivalency scores. The following are descriptions of the five Woodcock subtests.

(a) Letter Identification - The child is shown upper and lower case letters of the alphabet and is asked what each one is. The raw score is the number correct.

(b) Word Identification - The child is shown a list of words and asked to read them aloud. The raw score is the number the child correctly identifies.

(c) Word Attack - The child is shown a list of nonsense or uncommon words. For example, the word might be "leaplud". The raw score is the number of "words" the child correctly pronounces.

(d) Word Comprehension - The child reads a list of incomplete analogies and responds with the words he thinks correctly completes them. The raw score is the number correct.

(e) Passage Comprehension - The child reads a sentence or short paragraph. There is a blank space within the passage, and the child is to say a word which makes sense in the space.

To measure changes in the self-concept of children, the Piers-Harris Children's Self-Concept Scale was used. In this test, the child was asked 80 questions about himself to which he was to respond "yes" or "no". Some sample items are, "I am strong", "I am good in music", and "I give up easily". The score is the number of items in the child's answers indicating good self-concept. Therefore, the higher the score, the better the self-concept. The test is published by Counselor Recordings and Test, Box 6184 Acklen Station, Nashville, Tennessee, 37312.

Second Year's Evaluation

The drop-out rate was approximately 15% of the enrolled children during the first year treatment period of four months, so in the second year methods were tried to recruit persons who would be less likely to drop out.

Due to the possibilities of showing development gains for children in the treatment program seen in the first year, the Hogg Foundation, with the concurrence of HEW, agreed to increase the match money to provide for an expanded evaluation of the program in the second year through the use of better instrumentation and control groups. An "admissions committee", comprised of medical clinic staff, MIT and HSRI staff was formed in order to control the entry of children to the program who did not have lags. Prior to any child's admittance to or discharge from the program, the information was to be presented to the committee. Treatment and control groups for each of the MIT treatment programs were established as described in the following paragraphs. The list

of children referred to MIT from the medical screening clinic was randomly divided into those families (one child per family) recruited for treatment and those for control. Contact of the parents began for establishing a treatment group first. This was done because the funds for project expansion did not arrive until November 1976 (first year's activity ended in September 1977) and unless the treatment groups were started, insufficient time would have been available for complete results.

The selection of treatment and control groups, begun in November was completed April 1st. The long recruitment period (five months) was the result of the following factors: (1) Approximately half of the children on the waiting list had not received complete Denvers in the Barrio Center screening program. This made it necessary for MIT staff to administer Denver tests to more than thirty children before group selection could begin. (Many of the incomplete Denvers were the result of the childrens' uncooperative behavior during the clinic screen. The clinic later conducted retest Denvers on uncooperative cases.) (2) When initially contacted, some of the children selected for the program had moved, parents were not interested, or the children were enrolled in another program.

Second Year Infants

It was decided to use the Bayley Scale of Mental Development for pre- and post-testing the infants. The Mental Scale has 163 items that serve as prime indicators of the mental development at different age ranges. Test items deal with child's response to persons, visual and manual behaviors, simple and complex manipulation, verbal comprehension, and vocalization and verbal communication. The scores are used to establish the child's current developmental status, not to predict future performance. However, this test required a one to two hour test period and was generally too lengthy to serve as a useful tool for pre- and post-testing, especially since the reliability is questionable due to the rapid and variable maturation of

most infants during the period of life between zero and eight months. HSRI hired an on-site evaluator, but a large portion of that person's time was spent administering the Bayley pre-tests. The Loasa Teaching Behavior Score Test was administered. The Laosa instrument is designed to obtain quantitative measures of maternal teaching behaviors along a variety of dimensions considered important in the teaching of young children. Variables which are observed with this instrument include the quantity of verbal interaction, quantity of non-verbal interaction, positive and negative reinforcement, task control, and the use of commands versus questions and/or interrogative suggestions. The instrument was administered by trained observers (Laosa trained testors from the Intercultural Development Research Association who conducted the testing) who code the mother-child interactions during a structured situation involving two tasks of assembling tinker toys.

The primary goal of the home visits in the Infant and Preschool programs was to improve the teaching techniques the mother uses with her child. Differences among mothers in these teaching techniques affect the extent of learning and motivation the child develops in a learning situation. The Laosa instrument was designed to measure these techniques and the change score on this measure administered pre and post of the program period could be an indicator of program success.

The only correlation of the Bayley Mental Development Index and components of the Loasa Teaching Behavior with a statistically significant correlation was the correlation between the Bayley score and the question/interrogative suggestions component of +0.41 and the correlation of Verbal Teaching Behavior and the Total Teaching Behavior with the Bayley MDI at +0.35 or +0.25 respectively. The results of the second year pre-testing of the Loasa scores are shown in Figure 2-1. The commands aspect is the only one with statically

Figure 2-1
LAOSA CHANGE SCORES (PRE-POST)

<u>Category</u>	<u>Pre-Test Mean</u>	<u>Mean Change</u>	<u>S.D. of Change</u>
Total Teaching			
Treatment	96.8	-26.87	37.03
Control	95.9	-14.50	28.72
Total Verbal			
Treatment	82.2	-29.67	30.87
Control	66.1	-10.50	27.68
Total Nonverbal			
Treatment	15.8	2.13	13.82
Control	21.5	-2.30	16.50
Positive Verbal Reinforcement			
Treatment	8.5	.27	6.45
Control	5.7	.10	6.26
Negative Verbal Reinforcement			
Treatment	8.4	.47	6.71
Control	8.5	2.50	7.12
Commands*			
Treatment	51.6	-38.60	19.48
Control	46.7	-11.10	13.38
Question/Interrogative Suggestions			
Treatment	13.4	-1.87	12.99
Control	12.5	-2.20	8.20
Positive Physical Control			
Treatment	16.9	1.27	16.71
Control	22.4	-5.40	14.84
Positive Physical Reinforcement			
Treatment	0.5	0.20	1.21
Control	0.2	2.00	3.33

All Treatment NS = 15
All Control NS = 10
*Significant, α = .10

significant change, yet pre-test commands scores did not correlate with the pre-test Bayley scores.

Other Laosa score changes, such as in the overall teaching score, the total number of verbal and nonverbal behaviors, as well as the positive and negative verbal scores and the physical control scores were not significant (see Figure 2-1).

While these results may reflect lack of changes produced by the experimental effort, other possibilities must also be considered. For example, the great degree of variability of scores may have resulted from a faulty screening technique, so that wide ranges may have existed between the extreme cases. The large standard deviations may have then masked any significant treatment effect.

Another possibility is that the nature of the Laosa instrument itself limits its usefulness. The scale requires a behavior coder to record the interactions between a mother and her child as the mother attempts to teach the child a predetermined task. Thus the presence of a stranger (the observer) may affect the results. Also, the tasks were typically viewed by many of the mother's as high pressure, stressful, energy-draining events. Furthermore, the instructions told the mother to "teach" their child certain things. The Spanish word for teach also implies formal modes of instruction which may have confused some mothers. Such stress and expectations might have resulted in the treatment mothers regressing to earlier, previously used behaviors, such as using high rates of negative behaviors. Progress due to treatment efforts may then have been negated in the testing situation due to the high degree of stress evoked. Failure to establish differences then may be more a function of the Laosa testing procedure.

Second Year Preschool

The preschool component was tested in the second year utilizing the Dallas

Preschool Inventory, a test used by the local school districts to determine which preschool children need school readiness training offered by early childhood education preschool programs offered by the school district.

The Dallas instrument is designed to screen weaknesses and strengths in the primary learning areas of the preschool child aged three to six years. The primary learning areas screened on the Dallas are psychological, auditory, visual, motor, language and articulation development. The test is problem solving and the tasks are graded as successful or unsuccessful compared to the expected normal development of the child. The test yields an overall developmental level for each child which can be subtracted from the child's age to estimate his developmental lag. The mean developmental lag in the second year treatment group was 1.3 years while the control group mean lag was 1.9 years. The between-group difference of .6 years is not significant. However, the control group mean developmental change (Post-Pre) of 2.4 years was significantly less than the treatment group level of 3.3 years.

These measures thus indicate that the children treated in the Preschool Component of the MIT Program benefited significantly from the classroom portion of the intervention. However, it must be noted that no clear statement of the program's efficacy can be made since there is a strong possibility that initial maturation differences between the two groups may have produced the observed differences. The Loasa instrument was also administered at the time of the pre-test, but since there were no significant correlations to the Dallas Test, even at pre-test, the results were not used.

Second Year Educotherapy

The second year Educo-Therapy Program focused on tutoring and recreation.

In October 1976 approximately 80 children on the waiting list for the program

Figure 2-2

DALLAS CHANGE SCORES (CHANGE = POST-PRE)

<u>Category</u>	<u>Mean Scores at Pre-Test</u>	<u>Mean Change</u>	<u>S.D. of Change</u>
Auditory Age			
Treatment		2.22	1.68
Control		2.12	1.74
Psychological Age			
Treatment		1.49	1.57
Control		1.48	1.98
Developmental Age*			
Treatment	3.3	1.79	1.15
Control	2.4	.70	1.03
Visual Age*			
Treatment		2.29	1.60
Control		.31	1.22
Language Age*			
Treatment		1.87	1.45
Control		.96	1.87
Visual Motor*			
Treatment		1.13	1.82
Control		-.14	1.36

All treatment NS = 16

All control NS = 12

*Significant difference, $\alpha = .10$

were tested with the Performance Tests of the Wechsler Intelligence Scale for Children-Revised, and the Woodcock Reading Mastery Tests. A pool of 64 children aged nine to 15 who scored above 74 on the WISC-R and were reading above the 2.5 grade level on the Woodcock were selected as prescribed in the research design. The 64 children were then randomly divided into two experimental groups E_1 and E_2 . E_1 was enrolled for tutoring in the Fall Program which began November 8th and ended March 11th and E_2 was to start after March and E_1 would become a control group in the spring to guarantee some service to each boy.

Therefore, for experimental purposes, E_2 served as the control group for E_1 during the fall session. E_1 demonstrated a significant improvement ($t = 2.1$, $df = 12$, $\alpha = .10$) during the fall session, with a two month reading gain, and a standard deviation of three months. However, the difference after the session between E_1 and E_2 was not significant. That is, although the scores indicate a greater improvement for E_1 than for E_2 (2 months vs. 1 month gain respectively), the standard deviations were so large ($E_1 = 3$ months, $E_2 = 4$ months) that differences were not statistically significant. This result may have stemmed from the composition of the groups. Criteria for inclusion may have been too broad for a meaningful comparison.

The spring treatment group (E_2) showed no significant gain when compared with E_1 . Several possibilities arise: For example, it is conceivable that the gain made by E_1 enabled them to take advantage of school experiences, while E_2 , by not participating in the fall program, was too far behind to profit from the school's augmentation of the reading program.

In addition, the Woodcock Reading Readiness Test results indicated an ending significant difference between the E_1 and E_2 scores on the word identification and attack subtest ($t = 1.44$ and 1.34 , respectively, $\alpha = .10$). The implications from this are clear. The students in E_1 improved their abilities to recognize

and identify words, a basic language skill, but lost their learned proficiency as a function of time out of the program. The manner that the children learned to "approach" English words then appears to require an intensive, longer period of instruction.

Furthermore, since the respective scores on the passage comprehension subtests of the Woodcock did not significantly improve for either E_1 or E_2 , it appears that efforts directed at teaching more than basic English skills were too ambitious. Instead, a more basic approach may be called for, such as an "English as a second-language" effort. Basically, the data suggest that the children could not acquire English concepts beyond simple word recognition skills. More advanced goals, such as understanding English directions or school work in English, may not be appropriate for the population represented by these children.

The implications of these findings are crucial: they suggest that school systems may be overestimating the abilities of Mexican American children to comprehend English. Emphasis on English lessons, without first developing English language skills necessary to fully understand classroom materials, may be counter-productive producing boredom and "drop-outs".

As can be seen during the second year (1976-1977), funds were obtained to implement a more rigorous evaluation. A senior research assistant was hired by HSRI in September 1976, and a psychologist joined the project in May 1977 to strengthen the evaluation effort. The attempt to implement a more rigorous and systematic evaluation generated additional problems which centered around three issues: (1) the role of the evaluation team; (2) service versus evaluation model conflicts; and (3) the manner by which the programs were implemented.

The first problem had to do with the role of the evaluation team. In the first year the team served only as data analyzers and made no input concerning

the program, i.e., the evaluation design, implementation, and data collection, were not viewed as responsibilities of the evaluation team. As the MIT Program progressed, however, the funding agencies became interested in having the HSRI team assume a more active role in the design and implementation of the program. This definition of the team's role required important adjustments on the part of the MIT staff, as well as on the part of the evaluation team. From this new division of labor, a second issue emerged.

This issue arose around the question of which model would dictate the general operational procedures of the program--the service delivery or evaluation model. The first model focuses on the delivery of services to persons in need. For service-oriented people, the overriding concern is to deliver services to those presumed to need the most. Consideration of a control group for evaluation purposes and emphasis on systematic data collection procedures were viewed as secondary to the delivery of service. The evaluation model stresses primary emphasis on systematic conformity to a predetermined research plan.

The evaluation team had to learn to accommodate to service delivery issues while the MIT staff had to learn to accept and work within the restrictions imposed by the evaluation design. A major result of the conflict between the two models was clearly manifested in the recruitment and randomization of subjects to conform to the evaluation design(s). Major difficulties arose around recruitment of children, random assignment to control and treatment groups, curricula development, and training of program staff. These problems are discussed in detail in the following sections of this report.

Third and Final Year

Recruitment of Subjects

In the 1976-77 phase (second year) of the program, the evaluation faltered on inappropriate admission of subjects to treatment and control groups. This came about

for various reasons: inappropriate referrals of children to the program because of improper screening procedures, scoring errors in the use of screening instruments, lapses in systematic use of admission criteria, and failure in the recruitment process to obtain parents fully committed to the program.

To deal more effectively with these problems, the MIT and the HSRI Evaluation Coordinator were made jointly responsible for the development, implementation, and overall monitoring of all recruitment activities, including the development of a systematic and rigorous recruitment package (see Appendix G). Use of a highly structured package systematized the messages given prospective participants by the recruiters for each of the programs. The aim of this effort was to assure that the recruitment process gave all mothers identical information about the program, and reduced the possibility of erroneous expectations.

The recruitment package required each family to meet certain general criteria for admission of a child to one of the programs. For example, all participants had to be of the appropriate age of their respective program; and insofar as could be determined, the families of children admitted to the program had no plans to move out of the BCCHCC service area for the duration of the project. All families were "recruited" prior to selection of treatment or control.

More specific criteria were stressed for each program. The Infant Stimulation Program required participant mothers to be the primary caregivers of their children with no plans to work during the life of the program, and be willing to fully cooperate with the program. At the minimum, the mothers were required to be at home with their infant when the Infant Stimulation Aides made home visits, and to attend the mothers' meetings at the BCCHCC. For the Preschool Program, the primary caregiver was asked to cooperate and be available

for scheduled home visits. For the Educo-Therapy Program, the parents were asked to make available their child's report card, as well as have him attend every scheduled tutoring session.

Additional staff were also used, i.e., some MIT staff were assigned to recruitment activities by the MIT coordinator as they were needed if their other duties permitted such activities to recruit families for the various programs for the 1977-78 year. A staff person was also hired by HSRI to conduct and coordinate the recruitment activities. He worked under the supervision of the MIT and HSRI coordinators. These recruiters underwent intensive training to ensure that they understood the importance of their roles and how they were to conduct recruitment. Four months (July-October 1977) were devoted to recruitment which was completed for all three programs before program activities were begun.

The procedure used in the recruitment process for the current year actually began in June of 1977, with the MIT and HSRI administrative staffs meeting as an Admissions Committee to prepare general recruitment guidelines. It was thus decided by all that a detailed recruitment package (Appendix G) would be jointly prepared by the MIT and HSRI coordinators. To aid in this endeavor, the HSRI coordinator visited the San Antonio and Houston Parent Child Development Centers to discuss recruitment procedures and techniques. The resulting recruitment package was formally accepted by the Admissions Committee in early July, 1977.

The HSRI coordinator began generating in June of 1977, computer listings of children in the BCCHCC area who participated in the EPSDT program, and whose ages matched the specific requirements of each MIT component. Although the names were initially generated following a random procedure, the number of needed referrals eventually exhausted all names on file. About the same time,

high school teenagers hired by a city-sponsored summer jobs program (SANYO), were assigned to work as recruiters under the supervision of an HSRI evaluation team member. The SANYO workers were given a description of the MIT project. They were instructed to make the first home visits to determine whether the families were interested in participating in the program. Families expressing an interest were then visited by an HSRI worker who then made a formal presentation. A checklist ensured that the major parts of each component were stated for each family, thus assuring a uniformity of presentation for all families.

About mid-July of 1977, it became apparent that the SANYO workers were not appropriate recruiters. Their difficulties were the result of problems in providing personal transportation, not being fluent in Spanish, and the large amount of time necessary to supervise their activities. As a result, they were retained to develop and maintain the filing system created to coordinate and document recruitment activities. Such work eventually totalled 720 hours, and involved pulling the clinic folders for each child, obtaining the families' addresses and census tracts. Such preliminary efforts resulted in later saving many man-hours of work.

Meanwhile, the HSRI coordinator reassigned his staff so that an HSRI worker made most of the visits, assisted by an MIT community aide. Recruitment progressed at a slower rate than expected, leading to the use of some MIT staff to assist in the procedure.

In mid-September, it became evident that additional help was needed to assist in the pre-testing of groups. Accordingly, MIT staff were trained to administer various instruments. One problem that arose was that the MIT tutor-recruiters became very discouraged because of the tremendous amount of work required for recruitment and the slow rate of meeting the designated quotas.

Once the opportunity was given them to either continue recruiting or start administering the testing materials, most chose to stop recruiting.

Recruitment Time and Cost Analysis

A detailed picture of the effort involved in the recruitment process is presented in Appendix H. Most figures were obtained through analysis of the respective work sheets and represent an exact number of work-hours. The rest were estimated as conservatively as possible.

It should be noted that no guidelines were available to aid the project staff in estimating the efforts that were necessary to recruit the required numbers of children. The figures in Appendix H represent an attempt to shed light on the time and money needed to pursue a neighborhood program similar to that of the Barrio Clinic. The cost per active student was \$83.

It is of particular interest that the entire recruitment procedure required a total of 1.54 man-years of labor--a figure much greater than expected by the MIT and HSRI staffs. Problems encountered were difficulty in locating families, families being available only at certain times of the day, and needing to contact many more families than originally anticipated.

The extent of HSRI financial and personnel involvement signaled a major change in the evaluation role assumed by the HSRI staff. With a commitment of 1,090 man-hours, and \$6,059, the HSRI staff clearly became an active participant in the MIT programs. A dilemma presented itself as the HSRI staff found themselves in the position of evaluating a process in which they were heavily involved.

Randomization

The 1976-1977 (second year) program failed in its randomization procedures as some children were assigned to groups based on their needs and not on their assignments. Even though an Admissions Committee had been set up, it did not meet often enough to

prevent slippage of control children into treatment. To monitor the third year's randomization efforts both MIT and HSRI administrative staffs, serving as an Admissions Committee, met at least once a week during the four month recruitment phase.

The problem of service demands being in conflict with research needs was resolved by allowing the MIT staff to enroll several special cases in each program in addition to the treatment children. The special cases were not considered in the data analysis, although they received the same services as the treatment groups.

It must be noted that maintaining a random assignment design involved stressing the use of control subjects. However, many of those in the target population never understood the concept of "control groups", despite repeated verbal and written explanations of the randomized selection procedure. Parents whose children were assigned to control groups would repeatedly ask when their children would receive treatment, and then withdraw their child from the program when no direct action occurred. This happened even when the advantages of being in a control group were stressed. The general impression of the HSRI staff was that the control families generally withdrew not because they were not receiving the services of the treatment group, but because they incorrectly perceived that they were not allowed to belong to a specific clinic group.

The instrumentation in the third year of project activity was similar to that of the second year. However, it was decided to give the Bayley Infant Scale to the Treatment and Control group only at the end of the year, since the instrument was not reliable at earlier ages.

Other evaluation techniques besides pre and post-testing included surveys of the parents and case studies performed by the on-site evaluator through the project.

CHAPTER 3

FINDINGS OF THE INFANT STIMULATION COMPONENT IN THE THIRD YEAR

The Infant Stimulation Program began serving children eight to 13 months old and their mothers on October 17, 1977. The program's objective was to make the mother aware that they could be effective teachers of their children and, thereby, stimulate the development of the children. The program consisted of weekly home visits, made by Infant Stimulation Aides (ISA) and bi-monthly classes for mothers held at the Barrio Center. The home visits were one and a half to two-hour sessions in which the mother was shown and encouraged to practice techniques of interaction aimed at stimulating her child. The ISA's made home visits in teams of two, with one member attending to the siblings while the other worked with the mother and child. In addition, the mothers attended classes at the Barrio Center designed to reinforce the material presented in the home visits.

A unique feature of the Infant Stimulation Component was the use of older citizens as Infant Stimulation Aides. The ISA are members of a Foster Grandparent or Senior Citizens group, and so worked at no direct cost to the BCCHCC. The nine ISA, all women, ranged in age from 52 to 67. They enjoyed the work and saw it as a meaningful contribution to society, which also increased their feelings of self-worth. Also, their age and experience made them welcome visitors in the home of young Mexican American families.

The training sessions for the ISA were unstructured and informal. The instructions included demonstration, discussion, and supervised home visits to

families who participated in the program. However, the Infant Program supervisor and the evaluation staff observed that some of the ISA found it difficult to present a structured lesson during their home visit. To correct this, in-service training sessions were conducted twice a month for the ISA to improve their skills as teachers of parents.

It should be noted that the ISA's had limited education experiences-- of the nine persons in this program, none attended school past the third grade. While all were verbally fluent in Spanish, only three were verbally proficient in English. Few could write in Spanish, much less English.

Evaluation Measures

Given the very young ages of the infants, it was decided by the HSRI team to concentrate the data gathering efforts on a post-treatment design. It was assumed that the data collected following the intervention would be more reflective of environmental influences than data collected months earlier when the infant was responding more to internal stimuli than to his external world.

The Laosa Maternal Interaction Observation Scale, used the two previous years, was discarded due to the following reasons: (1) the stressful nature of the tasks typically resulted in most mothers becoming noticeably agitated; (2) the cultural bias in the tasks selected meant that the measures probably reflected the ability of the mother-child dyad to adapt to a novel situation rather than act as a measure of the interaction; (3) culturally insensitive instructions led to a predetermined response set--that of the mother assuming the role of teacher; and (4) the expense of using specially trained raters to obtain highly questionable data. (See discussion of Chapter 2 on 2nd year evaluation.)

Instead, the Bayley Scale of Infant Development was used as a measure of the infant's development. Due to attrition from the treatment and control group, and due to errors in testing of two of the children, the final

sample size became six children in the treatment and 13 in the control. The results of pre and post-testing and the associated data from a questionnaire administered to the parents are shown in Figure 3-1. The first two rows of Figure 3-1 shows that the Bayley MDI (the age-standardized score on the Bayley) was not significantly different for the child in either the treatment for the control group ($t = .17$ with 17 degrees of freedom). Also no correlations were found with the child's age, mother's age, family income, mother's education, number of siblings, or language spoken by the parents. The small sample sizes make conclusions very difficult. However, since there was no differential, even in the sample, it appears that the program did not have a measurable impact.

In addition, the Caldwell Home Observation Instrument, suggested by the Houston Parent Child Development Center, was also used. Again, no statistically significant differences ($p > .10$) between the two groups were found. ($t = .31$, 20 df)

Family Characteristics

As an attempt to learn more about the families being served, the families of the children in the infant program were surveyed prior to the program's inception to learn more of their backgrounds. Part of the findings are reported in Figure 3-1.

As the data indicate, the characteristics of families in both treatment and control groups are quite similar. Educational levels and incomes of the parents are very low. The mothers in both groups were interviewed by the on-site evaluator. The composite picture was that of families with limited success experiences with educational programs. Thus, while the mothers would stress the importance of their children eventually being in school, they typically emphasized the school's role in educating their children, rather

Figure 3-1

DATA FOR THE INFANT COMPONENT - THIRD YEAR

<u>Item</u>	<u>Group</u>	<u>Time of Testing</u>	<u>Sample Size</u>	<u>Mean</u>	<u>Median</u>	<u>Min.</u>	<u>Max.</u>	<u>Standard Deviation</u>
Bayley* Mental Development Index	Treatment	Post	6	74	70.0	50	105	24.30
	Control	Post	13	76	74.0	50	124	21.80
Child's Chronological Age in Months (Testing occurred 6 months later)	Treatment	Pre	6	11.17	10.5	10	14	1.60
	Control	Pre	13	10.08	10.0	7	12	1.55
Proportion of Parents Speaking Spanish to each other	Treatment	Pre	6	.83				
	Control	Pre	13	.84				
Number of Siblings	Treatment	Pre	6	2.17	2.0	1	4	.98
	Control	Pre	13	3.39	3.0	0	8	2.22
Mother's Age	Treatment	Pre	6	25.83	25.0	18	35	6.31
	Control	Pre	13	28.54	28.0	17	40	7.75
Mother's Education in Years	Treatment	Pre	6	7.50	7.5	1	12	3.94
	Control	Pre	13	8.00	8.0	2	19	5.75
Family Income	Treatment	Pre	6	\$5,898	\$5,148	\$4,000	\$9,600	\$1,981
	Control	Pre	13	\$4,738	\$4,992	\$2,604	\$7,592	\$1,543

*The MDI is a score standardized for the child's age. See Bayley, Nancy, "Bayley Scale of Infant Development Manual", 1969. The Psychological Corporation.

than the role they could play. In addition, they were not convinced how the program could help the infants learn. A typical response was "pers son tan chiquitoc (but they are so small/young)".

Other data (see Figure 3-2) reveal that most program families were renting. As a result, they were quite mobile, moving whenever a chance to work at a better job presented itself. While the families moved regularly, most of the new addresses were still within the Barrio area. Unfortunately, those addresses were often outside the BCCHCC 10 census tract service boundaries. Such movements, however, resulted in the Infant Program experiencing a high experimental mortality rate, despite a vigorous recruitment effort.

Also of interest is the chief language spoken by families in the Infant Program. Clearly, the primary language used in the home, both for adults and children, is Spanish. Spanish is the language that the infants are encouraged to use in their interactions with their world. Such reliance on Spanish underscores the importance of having the BCCHCC staff be bilingual, as well as the need to present all educational materials in Spanish.

General comments: The Infant Stimulation Program had difficulties beyond those discussed above, centering on the infants' parents' attitudes towards the program. A major problem remained of convincing the parents that an educational program involving infants could be effective. Unfortunately, the parents tended to view the program as basically designed for their infants and not as focused on training the mother that she could be an effective change agent for her child. Parents also expressed reservations about having a stranger (the Infant Stimulation Aide) come to the house, although use of older citizens tended to ease such discomfort. Also of concern was that the parents generally wished to consider the program as a day care service rather than as an educational program

Figure 3-2

RESIDENCE STATUS OF FAMILIES ORIGINALLY ENROLLED IN INFANT PROGRAM

<u>Residency Status</u>	<u>Treatment</u>	<u>Control</u>
Own	5	4
Rent	9	13
Unknown	1	0

involving both parents and their children.

Some difficulty was observed by the HSRI evaluation team in the transmittal of the developmental goals and lesson plans from the infant supervisor to the ISAs, from the ISAs to the mother, and then from the mother to her child. The difficulty arose in that through each stage of transmission, there were several different interpretations of the lesson plans and their intended goals. By the time the child received the lesson prepared for him, it sometimes lost its initial clarity and focus which the infant supervisor had proposed. This issue focuses on the need of much in-service training to minimize this type of difficulty.

In addition, it must be noted that some of the ISAs were removed from the program by their parent agency. The stated reason was that the ISAs were used improperly, as surprise visits by the agency's board members revealed that often the ISAs were simply babysitting or had been working with the child without the mothers being present. An unstated reason appeared to be that those ISAs from the withdrawing agency came in contact with ISAs from a second agency. The fact that the ISAs from the second agency earned nearly twice as much as the ISAs from the first agency, resulted in the transfer of some ISAs from the first agency to the second, and must also be considered as a possible explanation for the withdrawal of some ISAs.

However, the use of ISAs must be carefully weighed in evaluating their involvement in future programs. While they were a strong plus in the enthusiastic manner that they were received by the families, they were also a marked negative factor in their general lack of formal education. Many ISAs then, could not read well enough to follow a lesson plan, effectively communicate what occurred at the home, or write a follow-up note. The ISAs then required most of the time of the thinly-stretched Infant Coordinator, rendering her not able to

devote the required time to other vital matters, such as curriculum development or planning more in-service training.

In conclusion, it appears that the Infant Program experienced difficulty in the following areas:

1. The use of ISAs was a limited success. Positively, the ISAs were usually well received following the families' initial reservations about having a stranger enter their house. The ISAs themselves were proud of their roles, and as a group, stressed that they felt useful and were performing a needed service. Negatively, the ISAs had difficulty implementing lesson plans, as well as reporting what occurred during their visits. They also tended to focus their attention more on the infants than the mothers.
2. The curricula initially was undocumented and lacked organization due to limited staff time available for this task. While revisions were continuously being made, the lack of an overall documented theoretical perspective limited its evaluation by experts as an effective tool. Generally speaking, lessons focused on motor-oriented items as an activity to gain rapport with the mother and child, working in other areas of development, such as cognitive, social, or language development as was possible but with no set plan.
3. The parent interviews revealed that the parents were very mobile, and would leave when able to obtain a better-paying job. Other parents apparently left the program to enter the migrant stream. Furthermore, some parents stated that they saw little value in the program, as the infants were too young to learn. They had difficulty viewing themselves as capable of teaching their infant school skills, and relegated the teaching of such skills to the school system. This

combination of attitudes resulted in a high experimental mortality rate and should be addressed in any possible replications of the project.

4. The BCCHCC did not have the physical resources necessary to house the Infant Program. As a result, the ISAs were continuously shifted from one meeting place to another. This resulted in their feeling like their program had low priority in the Barrio Center list of activities. Adequate space is a must for any program. The Barrio Clinic will soon get additional space due to a grant from the City of San Antonio, but other programs need to be cognizant of the importance of good office space on staff morale and effectiveness.

CHAPTER 4

FINDINGS OF THE EVALUATION OF THE PRESCHOOL COMPONENT IN THE THIRD YEAR

The preschool component emphasized the preparation of three to six year old children for formal school experiences. The component provided experiences both in the BCCHCC and in the homes. The center activities included art, music, use of fine motor skills, and English language training. Weekly home visits were made for two preschool groups to discuss with parents the various educational plans used in the program, and to allow the parents to discuss and explore various topics ranging from child-rearing practice issues to questions about their role in their child's education.

To aid in planning the curriculum, and to aid in implementing the program in a consistent fashion, the Preschool Component was divided into three groups (see Appendix G). The children in Preschool A received two home visits a week, while the children in Preschool B received two home visits a week and two weekly classes at the BCCHCC. The children in Preschool C received two school visits only. The curriculum was discussed earlier in the chapter on program development. The groups A to C represented increasingly older preschool children with ages 3, 4, and 5 respectively.

Evaluation Measures

The objectives of developing school skills and stimulating language proficiency were measured by the Dallas Preschool Screening Test (DPST) and the Del Rio Language Screening Test. The DPST was used to assess gains in the

primary learning areas from ages three to six. This test is also used by the San Antonio Independent School District to screen children for enrollment in Early Childhood Education classes and to assess learning skills necessary upon entering public school. Six areas of learning are tested; these are:

1. Auditory - Listening, discrimination memory;
2. Language - Receptive, expressive, communication;
3. Motor - Gross and fine motor coordination;
4. Visual - Drawing, color discrimination, geometric designs;
5. Psychological - Vocabulary and number concepts;
6. Developmental - Estimate of developmental level.

The Del Rio Language Screening Test (DRLST) is designed to identify both English-dominant and Spanish-dominant three to seven year old children with deviant language skills. In addition, it may be used as a diagnostic instrument and a measure of relative language proficiency. The test consists of English and Spanish versions of five subtests:

1. Receptive Vocabulary - assesses comprehension of single nouns and verbs;
2. Sentence Repetition Length - measures memory for a string of words related in a grammatical sentence;
3. Sentence Repetition - Complexity - assesses ability to repeat relatively short sentences which gradually increase in grammatical complexity;
4. Oral Commands - evaluates memory for increasing numbers of oral commands;
5. Story Comprehension - assesses a child's memory for information presented in brief stories.

Preschool, Group A

No conclusions are possible from group A, due to the large experimental mortality rate. Although, Pre-A began with 17 children in the treatment group and 18 children in the control group, the program ended with only four children

in treatment and three in control. Only three of the treatment group had usable pre- and post-test scores, whereas only two of control group has usable scores.

The children who dropped out of treatment had similar pre-test scores as those who stayed in treatment, so the drop-outs were not due to being further behind initially.

Preschool, Group B
(Combination of Clinic and Home Visiting)

The age range at the time of enrollment for children in group B was from 43 to 60 months with a median age of 52 months. The data in Figure 4-1 reflects this result as well as the results of pre and post-testing and some demographic information. The group B treatment children showed statistically significant gains in the Dallas Preschool Test at the 0.1 level of significance ($t = 1.92$ with 6 degrees of freedom). The median gain in the developmental age over the six month period was seven months of developmental age, whereas, during the same six months, the control group children had a median gain of zero in developmental age. The most dramatic gains came in the language area, the primary focus of the preschool treatment program, where the median increase in language score was nine months in the treatment group and zero in the control. Since six months passed between pre and post-testing, the children were still not up to appropriate standards for their chronological age, but the treatment group made gains, whereas the control group dropped further behind.

The skills checklist used for the basis of the teaching program of the preschool program included some items from the Dallas Preschool Test. In a way, it meant that the project staff was teaching the skills which were on the

Figure 4-1

DATA FOR THE PRESCHOOL CHILDREN IN GROUP B
(FOUR YEAR OLDS)
(WITH COMBINATION HOME VISITING AND CENTER ATTENDANCE)

<u>Item</u>	<u>Group</u>	<u>Time</u>	<u>Sample Size</u>	<u>Mean</u>	<u>Median</u>	<u>Min.</u>	<u>Max.</u>	<u>Standard Deviation</u>
Dallas Preschool Inventory	Treatment	(Post-Pre) Change	7	7.43	7	3	13	3.78
Developmental Age Change in months (over a 6 month period)			11	2.36	0	-9	16	7.35
Dallas Preschool Test, Pre-Test	Treatment	Pre	7	32.57	30	26	40	5.16
	Control	Pre	11	33.55	33	23	49	7.61
Attendance (Number of Sessions)	Treatment	All	7	18	19	15	19	1.53
Child's Age in Months	Treatment	Pre	7	52.28	52	43	59	5.37
	Control	Pre	11	51.73	51	43	60	4.69
Mother's Age in Years	Treatment	Pre	7	37.29	37	28	46	6.96
	Control	Pre	11	27.55	26	21	34	4.18
Mother's Highest Education Grade	Treatment	Pre	7	6.43	6	2	12	3.15
	Control	Pre	11	6.91	6	2	11	2.77
Income	Treatment	Pre	7	\$5,160	\$4,760	\$1,820	\$7,800	\$1,950
	Control	Pre	11	\$5,004	\$5,298	\$3,696	\$7,200	\$1,118
Dallas Preschool Language Portion Change in Months of equivalent age	Treatment	Change (Post-Pre)	7	8.86	9	4	19	5.64
	Control	Change (Post-Pre)	11	1.27	0	-13	16	10.58
Dallas Preschool Language Pre-Test	Treatment	Pre	7	20.14	23	9	30	7.40
	Control	Pre	11	23.46	26	7	43	11.11

test among the other skills being taught. This could be considered good if these are the skills that are necessary to perform well in school. It could be bad if the child did well on the items taught at the center but had no transference of these gains to his or her general school readiness or general language skills. The treatment and control group children remaining at the end of treatment were very similar in most respects at the beginning of treatment except that the mothers in the control group appear to be about 10 years younger, but the median education (highest grade) was similar at 6th grade. The data is shown in Figure 4-1. Six children dropped out of the treatment group and six dropped out of the experimental group. A review of the pre-test scores of those who dropped out of group B showed that only two out of the six scored lower (with a score of 23) on the pre-test than the children still in the treatment group. Those dropping from the control group were similar to those that stayed in.

The following regression equations were significant (at $p < .1$) with t statistics in parentheses:

$$\begin{array}{llll}
 \text{Change in} & = & -5.86 + .21 (\text{Attendance}) & + .0017 (\text{Annual Income}) & R^2 = .28^* \\
 \text{Dallas Score} & & (1.69) & (1.68) & F^2 = 2.94 \\
 & & & & 5 \\
 \\
 \text{Change in} & = & -5.86 + 4.81 (\text{Group} & + .0016 (\text{annual} & R^2 = .28 \\
 \text{Dallas Score} & & \begin{array}{l} 1=\text{treatment} \\ 0=\text{control} \end{array}) & \text{income}) & F^2 = 2.89 \\
 & & (1.67) & (1.64) & 5 \\
 \\
 \text{Dallas Language} & = & 32.14 + 7.92 (\text{Group} & -0.59 (\text{age in} & R^2 = .25 \\
 \text{Change} & & \begin{array}{l} 1=\text{treatment} \\ 0=\text{control} \end{array}) & \text{months}) & F^2 = 2.47 \\
 & & (1.85) & (-1.34) & 5
 \end{array}$$

These equations show that in group B, preschool children, the treatment had an impact and the older the child at the beginning of the treatment, the less the change in the language score. Also, the higher the annual income, the more the gain.

*The R^2 is the coefficient of determination and the F is a computed statistic with 2 and 15 degrees of freedom.

It appears that the most gains in the preschool children can occur at four to five years of age. The pre-level of scoring on the Dallas did not have a relationship to the amount of change. This was probably due to the narrow age range selected according to the experimental design.

Preschool Group C

The preschool children who repeatedly scored low enough on the Denver Developmental Screening Test to be randomly placed in the treatment or control group after recruitment for the program and who were five to six years of age were placed in group C of the preschool program. These children came to the center with no home visiting. Figure 4-2 summarizes the major results of the data collected for these children. Only two children dropped out of treatment, although five children dropped out of the control group. Seven out of the original 15 treatment children had parents who owned their own homes, whereas only four of the 16 control children owned their own homes. Home ownership may be a factor that could be used to predict those children in the Barrio who would be most likely to remain in the program.

As shown in Figure 4-2, there were 13 children in treatment and 10 in the control group at the end of the treatment program.

Although home ownership was more prevalent in the initial treatment than the initial control group, the income level of two were very similar (average of \$5,000 per year). The average and median pre-test scores for the Dallas Preschool Inventory Test was somewhat higher ($t = -1.21$ with 21 degrees of freedom) for the control group. The persons remaining in the control group at the post-test time had a statistically significantly higher ($t = -2.07$, 21 degrees of freedom) score at pre-test time than those in treatment group. This makes comparisons difficult because the changes that took place in the Dallas scores left the two groups scoring in a similar

Figure 4-2

DATA FOR THE PRESCHOOL CHILDREN
IN GROUP C (FIVE TO SIX YEAR OLD CHILDREN
WITH CENTER ATTENDANCE ONLY)

<u>Item</u>	<u>Group</u>	<u>Time</u>	<u>Sample Size</u>	<u>Mean</u>	<u>Median</u>	<u>Min.</u>	<u>Max.</u>	<u>Standard Deviation</u>
Dallas Preschool Inventory Test	Treatment	Change (Post-Pre)	13	4.00	6.00	-16	16	8.39
Developmental Age Change in Months (Over a 6 Month Period)	Control	(Post-Pre)	10	2.30	1.50	-9	10	6.65
Dallas Preschool Test, Pre-Level	Treatment	Pre	13	39.00	36.00	29	50	8.41
	Control	Pre	10	43.20	43.00	29	56	8.08
Attendance - Number of Seasons	Treatment	All	13	12.50	13.00	8	17	3.04
	Control	All						
Child's Age in Months	Treatment	Pre	13	59.92	60.00	57	68	2.84
	Control	Pre	10	56.00	58.00	47	60	4.97
Mother's Age in Years	Treatment	Pre	13	33.00	32.00	25	48	6.86
	Control	Pre	10	32.70	31.00	19	54	10.19
Mother's Education (Highest Grade)	Treatment	Pre	13	7.33	8.00	1	12	3.31
	Control	Pre	10	8.00	7.50	3	13	3.56
Estimated Annual Income	Treatment	Pre	13	\$5,004	\$4,760	\$1,820	\$7,800	\$1,950
	Control	Pre	10	\$4,349	\$5,298	\$3,696	\$7,200	\$1,118
Dallas Preschool Language Portion Change	Treatment	(Post-Pre)	13	9.00	8.00	-4	26	9.52
	Control	(Post-Pre)	10	1.30	-0.50	-13	19	10.22
Dallas Preschool Language, Pre-Test	Treatment	Pre	13	24.23	26.00	7	42	10.67
	Control	Pre	10	32.4	32.50	20	45	8.22

manner at the time of the post-test. The treatment group gained four months of developmental age during the six months of treatment versus the two month gain of the control group (this difference in change between the two groups was not statistically discernable due to a $t = .54$ with 21 degrees of freedom), but this may have reflected a test-retest "regression to an individual mean" artifact. While the language change was statistically greater ($t = 1.84$ with 21 degrees of freedom) at the 0.1 level of significance with an average gain for those in treatment of nine and an average gain in the control group of 1.3, it is not clear that this was a true gain since the treatment group tested lower at pre-test. The effect in group B was much clearer due to the equivalence of pretest scores. Part of the reason for the difference in pretest scores for the experimental and control group children who remained in the program was that the two persons who scored extremely low (10 and 14) on the language pretest had dropped out of the control group by the time of post time, whereas the persons dropping out of the treatment group were similar to those remaining. With the two lowest scoring persons (at the pretest time) dropped out of the treatment group, the change in language score would be 7.72 points (standard deviation of 8.4) rather than 9 points and the t statistic used for testing the statistical significance of the difference between the gains in the treatment group and the gains in the control group would be 1.56. With the two children with low pretest scored deleted from the treatment group, the pretest Dallas language scores would be 27.36 for treatment and 32.4 for the control group (t statistic for difference between these two average scores would be 1.41 with 19 d.f.). Since the pretest scores were similar, and true differential gains were indicated between treatment and control group, it is likely that there was a minor gain in the treatment group over and above the control group. The data on educational level in group C shows that the mother's education level and the family income was extremely low, and that programs working with children need to involve the parent to the maximum possible

extent to ensure carry-over to the home.

As shown in Figure 4-2, the average attendance for children in group C treatment was only 13 sessions as compared to 18 sessions in group B. Perhaps insufficient time was available to show the extent of gains shown in pre-school group B.

Multiple regressions for the group C children are shown below for the change scores of the language portion of the Dallas Preschool Inventory with the t statistics in parentheses below each regression coefficient.

$$\begin{array}{lcl} \text{Change in Dallas} & & \\ \text{Language score} & = & 70.66 + 12.56 \left(\begin{array}{c} \text{Group} \\ 1=\text{trt} \\ 0=\text{control} \end{array} \right) - 1.24 \left(\begin{array}{c} \text{child's} \\ \text{age in} \\ \text{months} \end{array} \right) \\ \text{(Post-Pre)} & & (3.02) \quad (-2.52) \end{array} \quad \begin{array}{l} R^2=.35 \\ F_{20}^2=5.36 \end{array}$$

$$\begin{array}{lcl} \text{Change in Dallas} & = & -14.80 + .59 (\text{attendance}) + .5 (\text{mother's age}) \\ \text{Language Score} & & (1.98) \quad (2.07) \\ \text{(Post-Pre)} & & \end{array} \quad \begin{array}{l} R^2=.28 \\ F_{20}^2=3.795 \end{array}$$

The first equation has the higher F statistic and therefore is probably the most reliable. It shows that, controlling for the child's age at pre-test time, the treatment group did better by an average of 12 points and that the older the child at the time of pre-test, the less the gain that was achieved.

When children in all the pre-school groups are combined into a single group for statistical analysis, the following regression equation is obtained:

$$\begin{array}{lcl} \text{Dallas Change} & = & 17.38 + 3.52 \left(\begin{array}{c} \text{Group} \\ 1=\text{trt} \\ 0=\text{control} \end{array} \right) - .28 \left(\begin{array}{c} \text{child's age} \\ \text{in months} \end{array} \right) \\ \text{Score} & & (2.26) \quad (1.76) \quad (-1.92) \\ \text{(Post-Pre)} & & \end{array} \quad \begin{array}{l} R^2=.12 \\ F_{38}^2=2.89 \end{array}$$

The children in groups B and C combined give the following equations:

$$\begin{array}{lcl} \text{Dallas Language} & = & 17.43 + .50 (\text{attendance}) - .29 \left(\begin{array}{c} \text{child's age} \\ \text{in months} \end{array} \right) \\ \text{Score Change} & & (2.76) \quad (-1.52) \end{array} \quad \begin{array}{l} R^2=.165 \\ F_{43}^2=4.25 \end{array}$$

$$\begin{array}{lcl} \text{Dallas Language} & & \\ \text{Score change} & = & 16.2 + 7.12 \left(\begin{array}{l} \text{group} \\ \text{trt}=1 \\ \text{control}=0 \end{array} \right) - .27 \left(\begin{array}{l} \text{age in} \\ \text{months} \end{array} \right) \\ \text{(Post-Pre)} & & (2.67) \quad (.42) \end{array} \quad \begin{array}{l} R^2 = .157 \\ F_{43}^2 = 4.01 \end{array}$$

$$\begin{array}{lcl} \text{Dallas Language} & & \\ \text{Score Change} & = & -2.52 + .297 \left(\begin{array}{l} \text{attendance \#} \\ \text{of sessions} \end{array} \right) + .00084 \left(\begin{array}{l} \text{annual} \\ \text{income} \end{array} \right) \\ \text{(Post-Pre)} & & (2.26) \quad (1.76) \quad (-1.92) \end{array} \quad \begin{array}{l} R^2 = .17 \\ F_{43}^2 = 4.28 \end{array}$$

These equations indicate that, based on the totality of the two groups (B and C) and the corresponding larger sample size, the treatment program shows a differential (treatment as compared to control) increase of .3 months in the Dallas score per teaching session attended by the children (with a range of 7-19 sessions attended over a six month period). The language score showed a substantial increase when controlling for the child's age at the time of the pre-testing. However, the R^2 is only .16 which indicates that many factors other than the measures chosen could be affecting the change in the child's score, but unless those factors are correlated with the group (treatment or control), the effectiveness of treatment is established (especially among the children nearest age 4).

Comments about the Preschool Program

The size of the Preschool program suffered as a result of the recruitment process which involved selling the program to the parents, getting acceptance and commitment and then determining the treatment versus the control children. The length of time that the families had to wait while the various groups were filled prior to assignment of treatment or control was more than some families could tolerate. As a result, they enrolled their child in one of a number of competing programs. A similar experience was that several families expected the Preschool program to be a day care facility. Upon realizing that it was not a day care facility they withdrew their child.

Another major problem was that parents had a difficult time understanding

that young children could benefit from such a program. As a result, much effort was made to convince parents that enrollment in a preschool program was desirable. Unfortunately, some parents, once convinced, sought immediate placement of their children in any program they could find, making them ineligible for the MIT Preschool Program, since MIT avoided duplication of service.

It also appeared that the development of a rigorous recruitment package did not result in greatly reducing the experimental mortality rate. It thus may be that some consideration of the mobility rate may be of greater importance than the use of a comprehensive recruitment package. The recruitment technique did accomplish an evenness in the pretest results (at least for group B) which is desirable in a study of developmental change to avoid the "regression to the mean"* artifact of a post-test, pre-test design.

The Preschool Component also demonstrated that the logistical demands of a complicated program were beyond the resources provided in the funding. As a result of the logistical stresses, the program was modified by the MIT staff so that Preschool A received no school visits and Preschool C received no home visits. There is some uncertainty about what additional gains could have been accomplished with a broader based and more thoroughly organized curriculum. There are some potential difficulties in generalizing the results due to the situation where items in the test instrument were part of the basic skills list that served as teaching objectives. However, it appeared that more substantial gains were made in the four year old group than in the infant or educotherapy components of the MIT program. There was insufficient time available in the project to establish documentation of the impact of these gains into the area of school performance.

*"regression to the mean" refers to a situation where a particular individual scored considerably below his or her own average performance at the time of pre-test, but scored at his average on the post-test, making a gain look real.

CHAPTER 5

FINDINGS OF THE EDUCO-THERAPY COMPONENT

This program assumed that poor reading skills result in difficulties in school performance and attendance, and, subsequently, to lowering of an individual's self-esteem. Unfortunately, the Barrio Clinic area is served by two school districts, neither of which have special education or remedial reading programs which deal adequately with the large numbers of Spanish speaking children who have reading difficulties. Private remedial programs exist in the city, but are too distant and too expensive for most of these families. Thus, the Barrio Clinic through its MIT program, initiated an educo-therapy program designed to increase the reading skills of the children, to improve their school performance, and to counteract the negative input of poor reading skills on the self-concepts of the children participating in the program.

Accordingly, the educo-therapy program provided reading tutoring to fifth and sixth grade children who were randomly selected from the children who scored low on the Wide Range Achievement Test administered at the medical screen and whose parents were committed to helping the children in the program. This program consisted of tutoring twice a week in two after-school sessions. The tutors were nonprofessional college students hired from the community. The tutoring was conducted in small groups of three or four students per tutor.

At the program's start, each tutoring session was divided into five modules. The first five minutes were devoted to informal conversation stressing correct English usage. The next ten minutes were devoted to a game that involved reading tasks. The children then worked on self-paced reading activities for approximately 20 minutes. For the next ten minutes there was group reading and

discussion. The last 45 minutes of each session was devoted to free reading and recreation. The program changed focus in March 1978, as a result of a consultant's input toward a more individualized program of proceeding toward learning objectives, but this was deep into the treatment year.

Evaluation Measures

Various measures, both formal and informal, were used in this component, with primary interest in the Woodcock Reading Mastery Test as an index of reading skill gains. However, this was only administered at the end of the treatment because of a lack of time to conduct the pretest.

The Wide Range Achievement Test (WRAT) was used as a measure of reading ability for entrance into the program and was given both as a pre- and post-test. Certain subtests of the Woodcock were also used as an index of reading ability as its subtests are more general than the reading subtest of the WRAT, which primarily taps word attack and letter recognition skills.

Report cards were collected and used as informal indicators of the students' progress. It is of interest that the grades from their schools indicated that the children were performing adequately (average) at pre-test time even though the data indicated that they all had at least a 2.5 year reading lag! This may speak to a low expectation by the school of the child's ability to succeed. A survey of family characteristics (discussed later) suggests that the families may not be comfortable in confronting the schools to do more with the children.

The Language Assessment Scale (LAS) was also used to gauge the language proficiency skills of the children. Language skills in both English and Spanish were measured.

Data for the children remaining in the treatment and control group is found in Figure 5.1. Even though the sample sizes started off with 17 in treatment and

Figure 5-1

DATA AVAILABLE FOR THE
EDUCOTHERAPY CHILDREN AT END OF TREATMENT PERIOD
(EXCEPT FOR LAS SCORES)

<u>Item</u>	<u>Group</u>	<u>Time</u>	<u>Sample Size</u>	<u>Mean</u>	<u>Median</u>	<u>Min.</u>	<u>Max.</u>	<u>Standard Deviation</u>
WRAT Grade Level Change (Post-Pre)	Treatment	(Post-Pre)	8	2.4	1.85	-0.6	6.1	2.26
	Control	(Post-Pre)	17	0.6	0.4	-0.4	2.0	0.74
WRAT Pretest Grade Level	Treatment	Pre	8	3.23	3.15	2.3	4.4	0.68
	Control	Pre	17	3.64	3.80	2.5	5.0	0.89
Woodcock Word Attack Raw Score	Treatment	Post	8	35.3	33.5	20	51	11.9
	Control	Post	17	35.1	33.0	16	67	15.9
Woodcock Passage Comprehension	Treatment	Post	8	35.5	37.0	23	42	6.0
	Control	Post	17	35.1	36.0	24	64	10.1
Child Age in Years	Treatment	Post	8	10.87	11.0	10	12	0.64
	Control	Post	17	10.56	10.0	10	12	0.89
LAS Score (English) for all initially enrolled	Treatment	Pre	17	76.4				12.7
	Control	Pre	22	76.1				83.0
LAS Score* (Spanish) for all initially enrolled	Treatment	Pre	17	69.4				10.8
	Control	Pre	22	69.0				90.6

*LAS levels are derived as follows:

<u>Score</u>	<u>Description</u>	<u>Level</u>
85 to 100	Totally fluent English (or Spanish)	5
75 to 84	Near fluent English (or Spanish)	4
65 to 74	Limited English (or Spanish) speaker	3
55 to 64	Non-English (or Spanish) speaker; apparent linguistic deficiencies	2
54 and below	Non-English (or Spanish) speaker; total linguistic deficiencies	1

22 in control, the number remaining at the end of the year was 10 and 17 respectively. Two of the 10 in treatment had to be deleted because of errors in post-testing scoring, leaving a sample size of 8. Children in treatment at the end of the program were similar to the drop-outs in their initial grade level score on the WRAT. Other demographic characteristics appeared to be similar as well, but there were too many missing values to allow for an adequate presentation of the data. In comparison to children in preschool group A and B, group C mothers were several years older, had one or two more children and the family was more likely to own their own house.

The results of Figure 5-1 show that the treatment group increased the reading grade level almost 1.5 grades more than the control group ($t = 2.23$ with 8 degrees of freedom) even though they only started .4 grade levels apart at the time of the pre-test. However, the post-test of the reading portion of the Woodcock Reading Mastery Test shows no significant difference between the two groups in terms of word attack and passage comprehension. Since the Woodcock pre-test results were not available, and the WRAT test results only correlated less than .6 with the Woodcock results, conclusions are difficult to reach. The difference between the treatment and control group change in the WRAT score is even larger, when controlling for the child's age at the time of the pre-test as seen in the following regression equation:

$$\begin{array}{rcccl} \text{WRAT Change} & = & 9.39 & - & 0.83 \text{ (years of age)} & + & 2.09 \text{ (Treat=1, Control=0)} \\ \text{(Post-Pre)} & & (2.82) & & (-2.65) & & (3.86) \end{array}$$

$$R^2 = .46$$

$$F_{22}^2 = 9.41$$

The strength of the relationship has made the equivalence of the Woodcock scores difficult to reconcile. The only conclusion that can be reached is that

the treatment apparently helped the treatment group to improve on the Wide Range Achievement Test (Reading portion), but whether or not the improved performance on the WRAT means anything with respect to long term skills is questionable.

Comments

One unanticipated problem was discovered as a result of interviews with the parents: the power that many of the children demonstrated in deciding whether or not they would attend the MIT program. Accordingly, it may have been desirable to place more emphasis on the child's role in the Educo-Therapy program. A strong incentive program existing from the outset of the MIT program might have aided in obtaining their cooperation, and lowering the experimental mortality rate. This incentive plan was not implemented in the treatment group because the evaluation team felt that the curriculum needed to be individualized and documented in greater detail prior to implementation. The project, at completion of funding was three to six months short of being able to deliver the optimum educational effort.

The evaluation results must be described as limited, at best. While the WRAT scores indicated significant gains from the treatment, the more rigorous Woodcock scores did not. Perhaps a more intensive educational approach was needed, combined with an incentive scheme.

CHAPTER 6

GENERAL ISSUES

As might be expected in such an ambitious program, issues have been raised within each component's description that transcend individual component discussions. Accordingly, they will be briefly reviewed in this chapter.

Family Descriptions

In each component's findings, some family descriptions were included. In this section these findings are summarized and the results of a parent survey are given.

The relatively small family income, divided by the large family size, speaks to the impoverished nature of most of the BCCHCC families. There simply was not enough money to provide basic needs such as food and rent, much less other lower priority items such as toys for the children. The low incomes meant that family life often centered on day-to-day survival with little thought given to becoming involved in programs which demanded much time. Problems with family size and income level also meant that participating families would drop out whenever job opportunities presented themselves; a frequent occurrence in the Infant Program. Such data may suggest that the mothers should have been financially compensated for their time as a way of maintaining their participation in the program.

Also of interest are the highest school grades completed by the parents. The data indicate that the parents are, for the most part, below eighth grade education level. Thus, many parents have not had successful experiences with the school systems and may, as a result, not see much value in their children continuing school. Also, this may speak to parents not being comfortable in demanding that their schools provide quality educational services, as the

parents' experiences with school systems appear to be quite limited.

Implications for the MIT program are that the recruitment package may have needed more emphasis on educating the parents as to the value of successful school experiences for their children, as well as having classes for the parents to inform them of their rights as parents of school age children and what they should expect of their neighborhood school systems.

Another major issue involved the large number of families that rent their living quarters. Mobility patterns may be predictable, based on a combination of factors such as whether a family owns or rents their home and the gross family income. This may result in a best prediction of whether a family will remain in their respective program. Further investigation needs to be made of this issue, however, before definite statements may be made.

Also of major importance is the chief language spoken by families in the MIT program. Approximately 80% of the families tended to speak with each other in Spanish regardless of the child's age. Younger children were also addressed primarily in Spanish, with more English being used as the child grew. Children, in a similar fashion, appeared to use Spanish primarily with other children when very young, gradually increasing their emphasis on English as they grew. This may imply that one reason for the high overall experimental mortality rate was the chief language used by the MIT program personnel. That is, it may be that the children that dropped out of the respective programs did so because they were addressed primarily in English rather than Spanish. However, it was difficult to find well-trained personnel, bilingual or not, who could work in the Barrio for relatively low pay.

Parent's survey:

At the end of the project (July 1978), 103 parents of both experimental and control group children were personally interviewed in their homes by bilingual

interviewers in either English or Spanish, as preferred by the respondents. The survey was designed to get parent's opinions about their child's improvement and also assess the language skills of parents and attitudes about education. The questionnaire is shown in Appendix I. Included are the responses to those questions which are answered in sufficient detail to get a meaningful result. The results are shown by program component [Infant (I), Preschool A (PA), Preschool B (PB), Preschool C (PC), Educo-Therapy (ET)]. The sample sizes are included in the Appendix next to each group heading unless there is no change from the previous tables. The basic findings from the survey are presented in this section.

Table 6-1 is included to summarize the demographic characteristics of the families that were surveyed. The mother's age increased in the age-sequence of child groupings from an average of 26.6 in the Infant group to 40 in those answering the survey in the EducoTherapy group. The fathers generally had an average age four years more than the mothers, but very similar education. The average "highest grade completed" was approximately 7.5 for mothers and fathers. The annual incomes were reported to average approximately \$5000. Over half of the families of children in the study had more than two children. All but one or two respondents to the parent survey had at least one other child. The presence of other children pose special needs to a project trying to focus on a single child. If parents are to participate in the child's experience, staff should be available to care for the other siblings. It is difficult to work in the home with a single child when other children are interested in talking to the mother and the project staff person. One advantage of multiple child families is that benefits the mother receives from the experience may also be utilized to help the other children in the family as they develop.

Figure 6-1

AGE, EDUCATION AND INCOME CHARACTERISTICS OF PERSONS
RESPONDING TO THE SURVEY ATTITUDINAL QUESTIONS

	GROUP					
	Infant	Preschool-A	Preschool-B	Preschool-C	Educo- Therapy	Total
<u>Sex of the Child</u>						
N=	25	9	13	27	29	103
% Male	48.0%	22.2%	53.8%	59.3%	51.7%	50.5%
<u>Mother's Age</u>						
N=	24	8	12	25	27	96
Mean Years (Std.Dev.)	26.6 (6.9)	25.9 (5.9)	30.6 (7.5)	33.1 (7.5)	40.0 (10.6)	32.5 (9.8)
<u>Father's Age</u>						
N=	23	9	12	20	18	82
Mean Years (Std.Dev.)	29.3 (7.8)	29.0 (5.6)	37.2 (14.3)	37.7 (9.9)	41.9 (9.9)	35.2 (10.8)
<u>Mother's Education</u>						
N=	25	8	12	25	22	92
Mean * (Std.Dev.)	7.0 (3.6)	6.5 (3.1)	6.8 (3.6)	7.6 (3.6)	8.5 (2.7)	7.5 (3.4)
<u>Father's Education</u>						
N=	19	9	11	18	15	72
Mean * (Std.Dev.)	8.1 (4.2)	7.8 (1.6)	8.3 (3.6)	7.5 (3.8)	7.3 (3.6)	7.8 (3.5)
<u>Income</u>						
N=	18	7	8	20	13	66
Mean (Std.Dev.)	\$5201 (1805)	\$5289 (622)	\$4990 (1736)	\$4553 (2508)	\$5983 (2786)	\$5142 (2126)
<u>Number of Siblings</u>						
N=	24	7	12	25	29	97
% w/0 or 1	16.7%	14.3%	8.3%	12.0%	3.4%	11.4%
% w/2	37.5%	57.1%	8.3%	24.0%	13.8%	25.7%
% w/3 or 4	20.9%	14.3%	66.0%	36.0%	17.2%	28.9%
% w/ more than 4	24.9%	14.3%	17.4%	28.0%	65.6%	35.0%

*The measurement is the highest grade completed.

Among the parents, approximately 40% received most of their education in Spanish (only Spanish or mostly Spanish) with the parents of the Infant group having 30% and the Preschool A and B group parents having over 50% receiving education in Spanish. The husbands had similar language experience in their education except for Preschool B fathers, of whom only 8% had received most of their education in Spanish.

As mentioned previously, educational levels among the parents involved in the study were low with 20% having less than four years of education. Only 14% of the mothers and 25% of the fathers had completed high school. This shows the need to work with parents more on a one-to-one basis to help them understand what they should do to help the child's development. Over half of the parents of the preschoolers were speaking to their children primarily in Spanish. However, most families expected to stay in the U.S. and 99% expected their children to complete high school. In fact, 60% expected their children to finish college. Over 30% of the parents had moved to San Antonio from Mexico; and when the parents communicated with each other, 77% spoke primarily in Spanish, although only 25% could not read English. The culture of the parents is definitely Mexican American, but only 16% of the parents watch television programs which are primarily Spanish and only 2% of the children watch primarily Spanish television. Whereas 67% of the preschool children watch Sesame Street (in English), 83% of the parents indicated that they would like a Spanish version and 87% thought that schools should teach more about the history of the Mexican American (question #47).

A series of attitudinal questions (questions #33-70) were asked to determine the degree to which parents supported the educational system concept and valued education. All agreed with the need for their children to be educated and were generally supportive of the school's treatment of their

children. Approximately 20% of the parents of children in EducoTherapy tended to have a difficult time when they were in school and distrusted the schools based on their own experience, but the Preschool B parents were the most supportive of the schools and their importance.

Finally, the parents were asked how their children had changed since September. The findings are presented in Appendix I (Question #71). Of those responding to the question, most of the parents of infant and preschool children indicated substantial improvement, regardless of being in the treatment or the control group! They noticed that their children were more talkative and more active. However, among the EducoTherapy group respondents, all (9 out of 9) of those who had children who had stayed active in the program noticed improvement in the child's attitude toward learning, the family, and school; but only 5 out of 9 of the children in the control group had improved. Even considering those who dropped from treatment (6 out of 7 did not get better according to the parents) as a part of the treatment group, 63% of the treatment group versus 55% of the control group had shown improvement according to the parents. Although this difference is not statistically discernable, it does reflect potential for beneficial results in the EducoTherapy area and corroborates the findings of better performance on word recognition as reported by the wide range achievement test (especially for those who stayed active).

Summarizing the parent survey, it can be said that the parents survey indicated the need for a bilingual staff that can interact comfortably with parents and suggests that, due to low incomes and low education of the parents, substantial change in performance may take longer than the time period allowed in the project. The parents reported very few negative comments about the program and appeared generally supportive of the project and the educational system.

The control group parents of preschool children reported improvement in their children without the intervention of the project. The formal testing reported earlier, however, was measuring a more precise set of skills and in that measurement potential for gains were seen (at least in the preschool B group). This illustrates the need, in outcome evaluation of developmental education projects, of getting both cognitive and affective measurements.

Experimental Mortality Rate

The MIT project experienced a very high mortality rate; as the programs ended with only 45% of the proposed sample participating, and only 67% of the children enrolled at the beginning of the program. Some of the children left at the end of the program had questionable results such as scores of zero or scores beyond reasonable limits. These cases were eliminated due to the lack of usable data. (See Figures 6-1 through 6-5.) Such results are surprising given the elaborate and exhaustive recruiting efforts made by both the HSRI and MIT staffs.

Future programs may experience greater success by maintaining year-round recruiting efforts. Perhaps greater emphasis should be directed toward families that are buying (own) their homes, as opposed to those who are renting, as the former appear to have a lower experimental mortality rate than the latter.

The uncertainty of funding was a constant problem causing delay and loss of subjects. The amount of funds to be available for research and treatment was determined annually after a review of the previous year's results. Since neither the Barrio Center nor the HSRI could be assured of continued funding, staff was not recruited as fast as they possibly should have been and the recruitment of children could only be done after funding was certain.

The HSRI Team: As discussed earlier, the HSRI evaluation team's role evolved over the three years from that of solely assessing the project's data to

Figure 6-2

EXPERIMENTAL MORTALITY FIGURES--
NUMBER OF CHILDREN IN INFANT PROGRAM

	<u>TREATMENT</u>	<u>CONTROL</u>	<u>TOTAL</u>
Proposed	18	26	44
Start of Program	17	18	35
Midyear	10	21	31
End of Program	8	14	22
Usable Data	6	13	19

Status of Treatment participants who withdrew from program at midyear

6 = Not interested or available

3 = Mother works

2 = Mothers unable to continue because of illness

2 = Moved out of city

1 = Ineligible (enrolled last year)

14 = Participants who withdrew from treatment by midyear

Figure 6-3

EXPERIMENTAL MORTALITY FIGURES--
NUMBER OF CHILDREN IN PRESCHOOL A

	<u>TREATMENT</u>	<u>CONTROL</u>	<u>TOTAL</u>
Proposed	10	25	35
Start of Program	11	11	22
Midyear	6	9	15
End of Program	4	3	7
Usable Data	3	2	5

Status of treatment participants who withdrew from program at midyear

2 = Not interested

1 = Father ill

1 - Sibling enrolled in Infant Program

1 = Child too young (ineligible)

5 = Participants who have withdrawn from treatment

Status of control participants who withdrew from program at midyear

1 = Moved out of city

1 = Child too young (ineligible)

2 = Participants who have withdrawn from control

Figure 6-4

EXPERIMENTAL MORTALITY FIGURES--
NUMBER OF CHILDREN IN PRESCHOOL B

	<u>TREATMENT</u>	<u>CONTROL</u>	<u>TOTAL</u>
Proposed	16	21	37
Start of Program	16	21	37
Midyear	11	19	30
End of Program	9	12	21
Usable Data	7	11	18

Status of treatment participants who withdrew from program as of midyear

2 = Moved out of city

1 = Mother works

1 = Not interested

1 = Child is ill

1 = Child transferred to Preschool C component

7 = Participants who withdrew from treatment

Status of control participants who withdrew from program at midyear

1 = Enrolled in other program

1 = Moved out of census tract area

1 = Not interested

3 = Participants who withdrew from control at midyear

Figure 6-5

EXPERIMENTAL MORTALITY FIGURES--
NUMBER OF CHILDREN IN PRESCHOOL C

	<u>TREATMENT</u>	<u>CONTROL</u>	<u>TOTAL</u>
Proposed	16	26	42
Start of Program	13	26	31
Midyear	15	18	33
End of Program	14	10	24
Usable Data	13	10	23

Status of treatment participants who withdrew from the program at midyear

2 = Enrolled in other program

2 = Participants who have withdrawn from the program

Status of control participants who withdrew from the program at midyear

2 = Enrolled in other program

2 = Participants who have withdrawn from the program at midyear

Figure 6-C

EXPERIMENTAL MORTALITY FIGURES--
NUMBER OF CHILDREN IN EDUCOTHERAPY

	<u>TREATMENT</u>	<u>CONTROL</u>	<u>TOTAL</u>
Proposed	32	38	70
Start of Program	20	20	40
Midyear	16	22	38
End of Program	12	17	29
Usable Data	8	17	25

Status of treatment participants who withdrew from program at midyear

5 = Not interested

1 = Moved out of census tract area

1 = Moved out of town

7 = Participants who have withdrawn from program at midyear

that of assisting in planning the programs, hiring consultants, organizing the recruitment process, monitoring the programs, and evaluating the data. The evolution occurred largely as the result of pressure from a major funding source to assume more responsibility for the projects, as well as the result of major personnel changes.

Such changes resulted in a change in perspective, such that the evaluators became, to a large degree, project managers. This was an unwanted role which resulted in much HSRI time and resources being devoted to non-evaluative purposes. Such a move was mandatory, as the MIT program budget was very limited and did not allow for the staffing needed to adequately maintain the project as a research vehicle. Future projects should include a service delivery staff, a research coordination staff, and a separate evaluation team. The research coordination staff would be on-site and assisting the project to maintain a good research environment.

The MIT Team: The MIT program staff, over the three year span, was hard pressed to meet the demands of such an intensive project. Salaries were consistently low and general funding was inadequate to hire the staff necessary to develop and maintain a rigorous program. For example, each program required, but did not fund, a full-time specialist to design and monitor the curriculum, as well as provide frequent inservice training sessions to modify and amplify their work.

A limited physical plant also interefered with the project, as more spacious facilities would have allowed more children to be served, reducing the program cost per child, as well as permitting all programs to have adequate space and program integrity.

Survey: A problem of the MIT program was the lack of a systematic survey of the target population's characteristics and needs prior to the project's

inception. The major program issues of families' high rates of mobility, as well as the very low levels of income and education could then have been dealt with in a more appropriate fashion. The 1115 funding for innovative projects is not routinely set up to allow time for this type of activity, but it should be included as an integral and well funded portion of the first year.

Programs: The formal evaluation results indicate that the impact of the programs, as measured by the various instruments, was limited at best. Major variables such as insufficient funding to hire and maintain a staff capable of implementing the various programs, limited facilities and a high experimental mortality rate of approximately 50% which seemed strongly related to whether families rented or were buying their house, apparently had more of an impact than the actual implementation efforts.

However, other factors must also be considered. For example, families were made aware of the educational needs of their children. Families became aware that the BCCHCC offered social services, and on a larger scale, that there were public programs which could be used for their own benefit. Program families repeatedly stressed that they would look for other educational resources should the BCCHCC be forced to discontinue the MIT program. Such changes in attitude may be the most important results of the project's efforts.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

Throughout the report, conclusions have been made concerning each project subcomponent and recommendations made about replication of the clinic program. This chapter summarizes the conclusions and offers recommendations for other programs working with low income Mexican American children in an attempt to improve the level of school performance. This chapter will present conclusions concerning the recruitment of children into developmental treatment, the staffing of the treatment program, the impact of the program on children and parents, and the needs for future research. Recommendations will be given along with the conclusions. As an aide to the discussion, Figure 7-1 is included to show the primary data collected in the project.

Recruitment

During the third year of the MIT project, a total of 864 children were identified as eligible for developmental treatment. Except for the infants, the children were eligible because they had repeatedly scored low at a medical screening clinic on either the Denver Developmental Screening Test (DDST) or the Wide Range Achievement Test. More than 864 children scored low at the initial screening, but the high rate of false positives (50%) on DDST meant that only 864 were appropriate for the program. The infants were chosen randomly from all the infants seen at the clinic because during the third year of the project, no test was available for children under eight months of age which reliably classified children as developmentally lagging.

Figure 7-1. SUMMARY OF THE AVAILABLE DATA AND ASPECTS CONCERNING THE BARRIO CLINIC MIT PROJECT COMPONENTS FOR THE THIRD YEAR OF OPERATION.

Item	INFANT STIMULATION		P R E S C H O O L						E O U C O - T H E R A P Y	
	Exp	Control	A (2-3 years)		B (3-4 years)		C (5-6 years)		Exp	Control
Number Eligible	96	95	50	50	80	80	97	97	109	110
Number Enrolled	17	18	11	11	16	21	13	26	20	20
Number with usable data at end of program	/6	/13	/3	2	/7	11	/13	10	/8	17
Average age at pretest (among those w/ usable data)	11 mo.	10 mo.	--	--	52 mo.	52 mo.	60 mo.	56 mo.	11 yrs.	11 yrs.
Test used to Pre & Post-Test	BAYLEY									
Pre-Test score for those remaining at end of program	no pre-test		--	--	33	34	39	43	3.2	3.6
Average change in test score (Post-Pre)	Post-Test score 74 (MDI) 76		--	--	/7	2	/4	2	/2.4	0.6
Time between Pre & Post-Test	6 months		6 months		6 months		6 months		6 months	
Median family income	\$5148	\$4992	--	--	\$5160	\$5004	\$5004	\$4349	--	--
Median higher grade of education completed by mother	7.5	8.0	--	--	6.4	6.9	7.4	8.0	--	--
Costs of recruitment per child enrolled	-----The overall rate was \$56.00 per child enrolled-----									
Program costs per hour of therapy	\$24.22		\$8.81		\$4.02		\$3.24		\$10.01	
Quarterly cost per child enrolled at midpoint	/ \$630.00		/ \$135.00		/ \$162.00		/ \$143.00		/ \$250.00	

Nearly half of the eligible families were located too far from the clinic to provide them regular service because the clinic only had one van and driver, so they were not enrolled. Even with an intensive recruitment program of staff visitation and testing, only 40% of the children still in the service area would agree to be in either an experimental or control group (see the numbers enrolled for each program component in the second line of Figure 7-1). Part of the difficulty of enrollment was due to the time lapse between problem discovery and treatment start-up date in which had to be in November or December because of funding award timing. The population is highly mobile and had already moved out of the clinic service area or were considering moving at the time of recruitment. The cost of recruitment totalled \$56 per enrolled child. In an operating program which did not require a control group, which could enroll children at any time, and had assurance of continued funding, recruitment time and expense would be reduced by perhaps as much as 20%.

Volunteers of high school students on a summer work program were not found to be useful as recruiters because they lacked the knowledge of the program to enable them to answer the parent's questions and effectively sell the benefits of the program. However, they were useful in the clerical work required for determining which families needed to be visited.

Difficulty in recruitment was also found when long term treatment could not be promised due to the year to year funding of the project.

There is also a problem of drop-outs from treatment after enrollment (see line three of Figure 7-1). The children who dropped were no different in pretest scores than those who continued. The major variable which could be used to predict drop-outs was home ownership. Those children in families

who owned or were buying their own home had half as many drop-outs as those who rented.

Recommendations concerning recruitment

1. Programs wishing to provide services to low income Mexican American children in the area of developmental growth (particularly language and reading ability) need to allocate between \$40 and \$60 per child expected to enroll based on the experience in the Barrio of San Antonio, in order to encourage children who need the services to enroll for the services. Sufficient professional staff time needs to be allocated (included in the \$40-\$60) to allow the staff participation necessary to convince parents of the need for the program. At least three times the number of enrollees expected will probably have to be contacted to get the volume of participation required.

* 2. Drop-out rates can be reduced by accepting first, children from families who own or are buying their own homes, since this will result in less mobility out of the service area.

Program Staffing

The Barrio Multiple Impact Therapy project was trying to demonstrate that a low cost method was available for serving children found to have developmental delays. However, the project underestimated the staff needs for serving three different age groups. Persons trained in areas of education for school age children, preschool children, and infants, who are bilingual and willing to work in the Barrio are difficult to find. Each component should have had a supervisor with sufficient time to conduct staff training, develop a curriculum and provide some services in addition to an overall program manager. Since there was only a project supervisor and supervisor of the infant and preschool component, the project treatment costs were very low per hour of therapy, (see Figure 7-1, next to last row) but insufficient time was available for development of detailed curriculum and the necessary in-house training. Also, the space available for the existing staff was very limited and not conducive to development of written materials.

The infant stimulation aides (foster grandparents) found home visiting more productive when two would visit the home at once--one to care for the siblings, and the other to talk with the mother and provide the mother with infant stimulation ideas. The lack of formal education of the foster grandparents and the many demands upon supervisors time meant that the foster grandparents may have been inadequately prepared to conduct programs at the maximum possible level.

The limit of one van and driver provided logistical problems in treatment as well as recruitment. The foster grandparents had to be taken to the homes, but had to wait there until the van could return to pick them up. Therefore they stayed longer than would be required for effective intervention.

Recommendations concerning staffing

1. A low cost treatment program (one-fourth to one-half the cost of full-time day care) can be operated in the Barrio, but the funding needs to be sufficient to hire well trained supervisors for each age group who have enough time to carefully plan and document curriculum and conduct weekly in-service education. At least \$15 per hour of therapy is needed to cover direct treatment and administrative costs.

2. In funding or budgeting for a developmental treatment program, care is needed to avoid underestimating the needs for space--especially for staff offices and parent and staff classrooms located away from the areas where the children play.

Program Impact

The quantification of program impact was possible because all project enrollees were pretested and randomly assigned to the experimental or control group for each program component. Post-test results on the same tests were compared with the pretest results for both experimental and control groups to determine if the treatment had resulted in a net gain. The selection of children of

homogeneous ages minimized the age-bias of the test result changes. Only the infants were not administered a pre-test because no test could be found that was reliable at ages below eight months of age. However, both the experimental and control infants were post-tested.

The high drop-out rate resulted in extremely small sample sizes. However the data provided conclusions which can be used to initiate further study. The middle row of Figure 7-1 labeled "average change in test score (post-pre)" illustrates the basic results for a treatment period of six months. The following conclusions are reached:

1. There was no significant difference in the average Bayley Mental Developmental Index between the experimental and control infants at the time of post-testing. Also both treatment and control parents of infants reported that their children had grown a great deal in activity levels during the treatment period. Since the program did not start off with only infants who were thought to be developmentally delayed, the results may not be too surprising. However, until reliable and valid instruments can be found that measure infant development at early ages, further research on the impact of infant stimulation programs will be hampered. It may be felt that merely living in a low income barrio would be a sufficient measure of the need for an infant stimulation program. If this is the case, the program offered did not produce firm results, even in the small sample. Part of the reason may be that the curriculum and training of the foster grandparents was not extensive enough to make an impact, but since most of the parents were pleased with their child's growth, even without intervention, it appears that infant stimulation should get low priority for service delivery until more research is available to validate the benefits.

2. Preschool children who were four to six months of age and received both home visits and group activities showed the best results among the preschool

children. Those who were in the experimental group showed a higher average gain during the six months treatment period than those in the control group. The median gain was seven months developmental age over the six month treatment period for the treatment group versus a median gain of zero for the control group. The test used was the Dallas Preschool Inventory test which is utilized by most of the school districts in San Antonio to assess school readiness. The older children showed less gain such that, regardless of experimental or control group, each month increase in age meant a change of .6 less in the Dallas Preschool test score. Unfortunately, the sample size of parents surveyed from the preschool treatment and control group was too small to draw strong conclusions about program impact from their perspective. The test contained many of the skills taught during the treatment period--such as use and knowledge of colors. It is not altogether clear whether knowledge of these skills actually do lead to better school performance or whether it is the knowledge of the skills without treatment that predict better school performance.

The result is that there is a potential in four to five year old preschool children for improving school readiness as measured by the Dallas Preschool Inventory, but more research should be conducted to validate improved performance into the first years of school before launching massive preschool programs in the barrio.

3. The EducoTherapy group of ten to twelve year old children with two year reading lags who were in the experimental group made definite gains over the children in the control group on the Wide Range Achievement Test and a higher percent of the experimental group parents interviewed commented on a positive change in attitude toward learning, reading, and education than did parents of the control group. While the abilities in word attack improved,

a post-test of both experimental and control groups showed very little difference on the passage comprehension portion of the Woodcock Reading Mastery Test even though the experimental group scored several grade levels higher on the Wide Range Achievement Test (WRAT). Since the WRAT is the test used for the screening clinic and experimental group parents noticed improvement more than did control group parents, there is probably potential for improvement in reading ability given long enough treatment and an individualized plan of learning. The drop-out rate was highest in the EducoTherapy component, indicating a need for incentives to encourage youth to stay in the program.

4. During the first year, it was found that a few children were being admitted to the preschool programs, in particular, who did not have developmental delays on the routine tests used and that children who were already scoring above their age level were maintained in the program because the mothers wanted their children to have a day care type social experience. The project needed to maintain good community relations so they would admit or keep the child in the program. The staff also preferred working with those children who responded well to them. In some cases, children passing repeat testing were continued in treatment. To counteract these tendencies, repeat testing was begun before admission to the MIT program and an admissions committee was formed to review each child to be admitted and each child in treatment. By the third year of the project, all children in treatment were appropriate for the treatment program being offered.

Recommendations resulting from measurement of program impact

1. Although the measurement of program impact in the developmental field is only in the early stages of development, the data presented in this report creates serious doubt about the effectiveness of low cost intervention programs

among low income Mexican American infants through home visiting by foster grandparents. However, additional research is needed, utilizing control groups in a larger population base along with increased supervision of the foster grandparents and a more refined curriculum than could be developed during the time of the project.

2. While costing approximately one-fourth of what full time day care would cost, preschool children aged four and five showed some gain in school readiness skills as a result of the preschool program of home visiting and center attendance for two to three hours per week. Additional studies should be encouraged prior to widespread replication due to questions about the validity of the test as an instrument for measuring change in overall school readiness.

3. Reading programs for ten to twelve year old children with intensive individualized instruction, incentives for staying with the program, and repeated testing for evaluation purposes deserves further demonstration for Mexican American children both in the schools and in alternate environments, but the time of treatment needs to be greater than six months to determine whether or not additional and more intensive work can help improve passage comprehension as well as word attack.

4. The relatively small amount of measurable program impact as a result of six months treatment, the tendency for some parents whose children are not developmentally delayed to want a day care type experience for their children, and the tendency for staff to want to work with those children who are "cute" and respond well to them means that existing programs serving low income children should undergo occasional pre and post testing (perhaps with control groups) to insure that funds are being spent productively when the purpose is improved school readiness or school performance in a disadvantaged population.

Directions for future research

Throughout the discussion of the conclusions, the need for further research prior to wide scale implementation has been suggested. While it has been shown that a very low cost, short term program had only marginal results, it is entirely possible that a longer term medium cost (e.g., half the cost of full-time day care) effort may produce substantial results. Sufficient funding to focus on a particular age group with guaranteed continuity for at least three to five years would aid in producing an optimal research and service delivery environment.

The instrumentation for measurement of child development in a bilingual multi-age population needs revision to include words and phrases which are relevant to the low income Mexican American experiences and tests that are reliable when given by varying types of personnel both in a clinic and a home environment.

Regardless of the problems with existing instruments, as long as the staff and funders can agree upon the goals and the concepts being taught, continued research and field laboratories in the low income communities are needed.

Although the Barrio Clinic very quickly and efficiently put together an operational program acceptable to the parents and the referring pediatricians, it took two years of adaptation (as a result of project experience and interim evaluations) before the program was refined to the extent where more conclusive evaluation and measurement was ready to begin. At the time of project termination (due to the three year funding), the project was ready to undertake a medium cost effort which, if given sufficient time may have produced sufficient data to reach strong conclusions.

Recommendations concerning future research directions

1. Additional field laboratories for developmental assessment and treatment are needed which are located in low income areas and have a strong evaluation component with well designed control groups and at least five years guaranteed funding. The funding should be jointly sponsored by Health Care Financing Agency (HCFA) and the Office of Education since HCFA has responsibility for ensuring treatment in the EPSDT program, but the actual treatment programs are more educational in nature.

2. More research is needed to establish relevant and clinically useful developmental tests which are appropriate to each of the major age groups.

3. Control groups, while very difficult to achieve without consternation in the community, are needed once the delivery program is adequately refined because many of the children in the control group made gains on their own without treatment. Control groups are necessary to validate the benefits of the treatment process before massive amounts of money are spent. It has been found that a child belonging to a control group for developmental education would not have any substantial social risks.

APPENDIX A
SUMMARY OF FINDINGS FROM THE FIRST YEAR

THE MULTIPLE IMPACT THERAPY PROJECT FINAL EVALUATION REPORT

Introduction

This report presents an evaluation of the Multiple Impact Therapy Project (MIT) of the Barrio Comprehensive Child Health Care Center (BCCHCC). The report is in four parts. The first part provides a brief description of the MIT Project activities and the methodology used to evaluate these activities. The second part presents the results of the evaluation and discusses their policy implications. In the third section, an analysis is made of pre- and post-test scores of children who received therapy during the report period. Finally, in the fourth section, the costs of the MIT Project activities are reported and combined with the test score results to determine cost-effectiveness.

MIT Project Activities and Evaluation Design

The MIT Project provides developmental and educational therapy services to children referred from the BCCHCC screening project.¹ There are three program components, the Educo-Therapy Program--provides reading tutoring and recreation therapy to elementary school boys; the Preschool Program--provides play therapy in a preschool setting to children aged three to six; and the Homebound Program--provides infant stimulation therapy in the home to children aged zero to three.

In the Educo-Therapy Program, fifty-one elementary school boys whose reading level is far below their grade level (average lag of 3.6 years or pretest) received reading tutoring and recreation therapy during the study period. The boys were referred to the Educo-Therapy Program on the basis of their failing the Wide Range Achievement Test (WRAT) given at the BCCHCC screening project. Upon entering the Educo-Therapy Program each boy was further tested with the

¹- Discussed in an MIT Interim Evaluation Report for a description of the MIT relationship to BCCHCC.

Woodcock Reading Mastery Test and the Piers-Harris Children's Self-Concept Test.¹ The boys were assigned to one of three different groups for therapy with an intent to match the groups with respect to age and reading lag.

Group A: Seventeen boys received three hours of reading tutoring a week in two sessions. Tutoring is done in small groups of two or three boys per tutor.

Group B: Sixteen boys received reading tutoring at one hour-and-a-half session per week. An additional one and one-half hours of recreation therapy is provided per week. The recreation therapy emphasized self-concept improvement through activities, unstructured play, and games.

Group C: Eighteen boys received recreation therapy at a large group session each week. For purposes of the study, this group serves as a control.

The three therapy modalities in the program were designed to test different approaches to improve reading lag in elementary boys. The following hypotheses were tested: (1) Boys in each group will show improvement in self-concept with the greatest improvement by boys in Group B; (2) Greater reading gains will occur with those boys who have smaller lags, e.g., a boy two years behind in reading will improve more than one four years behind; (3) Reading gains in Group A and Group B will be similar, with a slightly larger gain by Group B; and (4) Reading scores for Group C will remain the same (pre- and post-test) or show a slight gain.

In this report, the above hypotheses are tested by comparing pre-test and post-test scores on the Woodcock and Piers-Harris for 40 boys in the three groups for the period February 2 to April 30, 1976. During this period, each boy received an average of 14 hours of therapy. In addition, the test results for boys

¹See Appendix B for description of testing instruments used in the various program components for the MIT project.

in each group are combined with the cost of therapy to determine the cost-effectiveness of the three approaches.

The Preschool Program provides play therapy at the project for children aged three to six who have developmental problems. Children are referred to the Preschool program on the basis of failing two or more areas on the Denver Developmental Test¹ given at the BCCHCC screening project, or by parent request. Upon entering the program, children receive a second Denver test to verify the initial test results. This report evaluates the effectiveness of this program for a four month period, ending April 30, 1976, in which 26 children were enrolled. Pre- and post-test Denver scores are compared for 17 children who received an average of 39 hours of therapy in two-and-one-half-hour sessions twice a week. The four month cost of the Preschool program is combined with the test results to measure cost-effectiveness.

The Homebound Program provides infant stimulation therapy to children aged 0 - 3 years. Children enrolled in the program have failed at least two areas on the Denver Developmental Test given at the BCCHCC or, were judged in need of therapy by the staff on the basis of other criteria. A retest Denver is not given in the Homebound program. Under the guidance of an early childhood specialist, volunteers and foster grandparents teach the children's parents play therapy techniques, play with the children, and provide environmental stimulation on a one-to-one basis in the children's homes. In this report, pre- and post-test Denver scores are compared for 11 children who received therapy over a four-month period, ending April 30, 1976. Children received an average of 47 hours of therapy in two-hour sessions twice a week. In addition, the cost of the Homebound program for the four-month period is combined with the test results to derive measures of cost-effectiveness.

¹See Appendix B for description of testing instruments.

There were several problems encountered in evaluating the various programs of the MIT project. These problems are presented below to emphasize the exploratory nature of this analysis and to suggest refinements for future study of the MIT project.

In the Homebound and Preschool programs, for example, the evaluation design is inadequate by the fact that no control groups were created. Hence, any developmental improvements made during the study period cannot be credited to therapy provided, but may reflect normal maturation effects. (Further discussion of this problem is presented in the test results section.)

Another problem is the inappropriateness of Denver pre- and post-test scores as measures of program effectiveness in the Homebound and Preschool programs. The Denver is not specific enough to reflect the developmental impact of these programs and its use biases the results downward. Initially, the Denver was to be augmented by further testing done at the Harry Jersig Speech and Learning Center. However, due to a misunderstanding, the Jersig Center testing proved unsatisfactory and the Denver scores had to be used.

Also, it was determined that some of the children in the Preschool and Homebound programs did not fail any areas of the Denver on the pretest but were in the program because of parent request or because of staff judgment of need. For these children, it was impossible to show any improvement on the post-Denver test. In the test results section, the pre- and post-test scores are compared, including and excluding these children.

In the Homebound program, the Denver test scores on half of the children are biased by the fact that the pretest was given at the project, while the post-test was given in the children's homes. This difference in test conditions probably is reflected in higher post-test scores.

In the Educo-therapy program, the accuracy of the cost and activities data suffers from the fact that the program is relatively new (in full operation since

early February). For example, the "Other cost" category for the Control Group C includes testing and administrative costs accrued in creating the group. These costs did not directly support the therapy. Hence, the cost figures for Group C therapy are probably too high. In Groups A and B the "Other cost" category probably reflects the high cost of working out the kinks in a new program and should not be interpreted as typical of a three-month period.

Finally, in the Educo-therapy program, the pre- and post-test period of approximately three months is too short to show measurable improvement in the boys' reading and self-concept. It was pointed out above that the average number of hours of therapy per child during the report period was only 14. At three hours per week, this is only five weeks of therapy per child (reflects the high absentee rate in this Program, especially in Group C). Assuming the therapy effects on the child are cumulative, a longer period of therapy would have been more appropriate for evaluating this program.

On the basis of these problems, the following recommendations are made for future study of the MIT Project: (1) Control groups must be created in the Preschool and Homebound Programs; (2) Additional testing instruments need to be employed which are more sensitive to the objectives of the Preschool and Homebound Programs; (3) Enrollment criteria must be specified and followed by the staff to ensure that the Project serves children it can help. Other children must be referred to agencies where they can be better served; (4) Test conditions need to be controlled to assure test reliability.

Results

In this section the study results are summarized and policy recommendations are made.¹ The results provide preliminary evidence for determining the efficiency and effectiveness of the MIT Project, and suggest policy refinements for future improvement. All conclusions are tentative and should not be used as the singular criterion for policy decisions.

Overall, the MIT programs achieved their process objectives. Over 90 children received therapy services during the report period. Hours of therapy per child ranged from ten hours in Group C of the Educo-therapy program to 47 hours per child in the Homebound program. A diverse variety of therapy services was provided.

The programs have had a positive effect on the children served. Of the 28 Homebound and Preschool children with pre- and post-test results, 13 (46%) showed delays in fewer sectors on the Denver Developmental Test after four months of therapy (primarily in language, See Tables page 19, 20). Twelve (43%) children showed no change and three (11%) children showed an increased number of delays on the post-test. Overall, in the four developmental sectors tested on the Denver, the children reduced their mean number of delays by one-half sector during the period studied. The lack of control groups for this age group makes it impossible to distinguish normal maturation effects from the effect of the therapy.

It appears that the Preschool program was more cost-effective than the Homebound program. The number of children who improved, the percent of children improved, and the mean improvement per child was greater for the 17 children in the Preschool program (Table 7, page 27). The Preschool program was less expensive with an economic cost of about \$300² per child for the four-month period,

¹See Table A, page 10, for a composite summary of results.

²Actual program expenditures average only 62% of economic costs for the MIT Project (See Table 2, page 24).

compared to \$800 per child in the Homebound program. On the basis of cost-effectiveness (cost per unit of improvement) the Preschool program cost was less per child improved and per unit reduction of delays on the Denver (Table 8, page 28).

These results suggest that the Preschool program can achieve greater developmental impact per dollar than the Homebound program. However, this conclusion is questionable given the problems (discussed in earlier section) with the pre- and post-measures used to evaluate program impact. Further examination of these two programs is required to decide whether to expand or reduce their activities. More careful pre- and post-testing is needed including the adoption of more appropriate testing instruments. Furthermore, enrollment criteria must be specified and followed closely by the staff to ensure that children enrolled are in need of the services the programs provide.

In the Educo-therapy program the analysis provided an unexpected result. It was found that child improvement in self-concept and reduction in reading lag depended more on the pretest level of self-concept and reading lag than on the mode of treatment the child received. Children with lower self-concept scores on the pretest improved most in self-concept during the study period. However, they tended to improve less in reading (smaller reduction in reading lag) than the children with higher pretest self-concept scores. This result held when controlled for the group the child was in during the study period.

The positive relationship between self-concept pretest score and reading lag reduction suggests that children with higher self-concept will benefit more from reading tutoring than those with low self-concept. Moreover, it appears that self-concept and reading lag do not improve simultaneously but that a lag exists between the two. Although the children with lower self-concept scores improved more in self-concept, they tended to improve less in reading. This relationship suggests that self-concept must be improved before reading lag can be

reduced.

The reduction in reading lag achieved during the study period was also significantly related to pretest reading lag. As was expected, children with a smaller lag initially reduced their lag more during the study period than those with a larger lag on the pretest. This suggests that the therapy program is more effective with children who have less serious reading problems.

These findings suggest that program effectiveness can be improved by providing reading tutoring only to those children who have a higher self-concept and smaller reading lag initially. The children with lower pretest levels can be more appropriately served with therapy directed at improving self-concept followed by more intensive reading tutoring.

In between-group comparisons, A and B showed no significant difference from the control group (Group C) in either improved self-concept or reading lag. However, for all three groups the average level of self-concept rose during the period. In Group A, where more intensive reading tutoring was provided, the average increase in self-concept was significantly greater than zero at the .05 level significance. The gains in reading were ambiguous. The average reading lag increased .3 months for Group A children, was reduced by 1.4 months in Group B, and was constant in the control group. For all groups the change in reading lag was statistically insignificant.

According to unit cost (cost-efficient) measures, the Group B treatment mode was cheapest (Table 6, page 26). The cost per child and cost per hour of therapy was lower in Group B than Group A or C.

Comparisons of cost-effectiveness are ambiguous. On the basis of unit costs per improved self-concept and reading lag, Group B was better than A, but neither A or B is more cost-effective than control Group C (Table 8, page 28). Hence, by the cost-effectiveness criterion, there is inconclusive evidence to evaluate

the three sub-components of the Educo-therapy program. However, on the basis of costs per unit of service (cost-efficiency), Group B is the most efficient, and the study results support its expansion over the Group A Technique.

Besides the pretest levels of self-concept and reading lag, two other variables were significant in explaining reduction in reading lag in the Educo-therapy program. Children who had volunteer tutors improved more than other children and children who were younger improved more than others. The effectiveness of volunteer tutors over the non-volunteer tutors may be related to a variety of factors (these factors are discussed in the next section). Further investigation of the significance of this variable is required before any policy implications can be discussed. As expected, there was intercorrelation between age and pretest reading lag. This is true by definition since age is a factor in defining reading lag. Thus, our conclusion that program effectiveness can be improved by serving boys with a smaller lag also means serving boys who are younger.

In summary, the MIT project appears to be providing a variety of services to children in a cost-efficient manner. The ability of these programs to improve the developmental level, self-concept, or reading lag of children served cannot be supported by the data. Thus, a comparison of program components on the basis of cost-effectiveness is inconclusive, although the Preschool program and Group B treatment mode in the Educo-therapy program have a slight edge over the rest. The investigation of factors which explain improvement in the Educo-therapy program showed that pretest scores in self-concept and reading lag were important and suggest the future adoption of a placement strategy on the basis of pretest levels. Furthermore, the type of tutor (volunteer versus non-volunteer) and age of child are important in the Educo-therapy program.

APPENDIX B
Home Inventory Form

Appendix B

Home Inventory Form

Child's Name _____

Age _____

Address _____

Please fill in all blank spaces.

	YES	NO
1. Does child have a high chair?	_____	_____
2. Does child have an infant seat?	_____	_____
3. Does child have a rattle?	_____	_____
4. Does child sleep in a crib?	_____	_____
5. Does child have a mobile?	_____	_____
6. Does child have a roly-polly toy that makes noise when hit?	_____	_____
7. Does child have a push-pull toy?	_____	_____
8. Does child have blocks?	_____	_____
9. Does child have a musical top?	_____	_____
10. Does child have a walker only if he/ she is not walking alone yet?	_____	_____
11. List any books or other toys, play equipment that child has in the home or in the yard.		

Signed _____

Date _____

APPENDIX C
Child's Development Form
and Lesson Plan

Appendix C

Child's Developmental Form & Lesson Plan

Name (Last) _____ (First) _____ D.O.B. _____

Date tested _____ Test given _____ by _____

Developmental Milestones

	Failed	Passed
Gross Motor	_____	_____
Personal-Social	_____	_____
Fine Motor Adaptive	_____	_____
Language	_____	_____

Child's Strengths:

Goals:

APPENDIX D
Lesson Plan and Observation Report On

Appendix D

Lesson Plan and Observation Report On

Childs Name _____ Date _____

Age _____ Therapist _____

Comments _____

Name of Lesson _____

Reason or goals 1. _____

2. _____

3. _____

Materials needed _____

Observations: 1. Does mother understand the lesson? _____

2. Does mother understand the reason for the lesson? _____

3. Did child cooperate and perform the lesson? _____

4. Did mother praise the child? _____

5. Will lesson have to be repeated again? _____

When _____

6. Was copy of Lesson Plan left with mother? _____

7. Were materials needed left with mother? _____

8. Date for next Home Visit _____

APPENDIX E

Consultant's Evaluation of Infant Curriculum

Lucille Rochs, Consultant

I. INTRODUCTION

This report will attempt to discuss the results of consultant service with The Infant stimulation Component of the Multiple Impact Therapy Program at the Barrio Comprehensive Child Health Care Center. This service was purchased by the Health Services Institute, University of Texas Health Science Center at San Antonio. The tenure of this report is from February 1 to May 31, 1978. The charge to the consultant was to assist with in-service training for the program, review and make recommendations for improvement of the curricula and program operation, and give technical assistance to the Infant Program Supervisor, with a directive to not change the on-going current year's research model. This has been accomplished in the following summary of direct service to this program.

<u>TYPE OF CONSULTANT SERVICE RENDERED</u>	<u>NUMBER SESSIONS</u>	<u>CLOCK HOURS USED</u>
Home visits (treatment sites)	5	15 1/2
Curriculum/Program Review	4	14
Parent In-service training	4	10 1/2
Infant Stimulation Aide In-Service Training	13	40 1/2
Miscellaneous	<u>4</u>	<u>7</u>
Totals	30	87 1/2

From the above it can be noted that thirty sessions were conducted involving eighty-seven and one-half hours at the program site in the four month period. This is an average of approximately two and one-half hours per session, and an average of seven and one-half sessions per month.

This report will discuss strengths of the on-going operation with recommendations for consideration for funding continuation purposes.

II. INFANT STIMULATION AIDE

The emphasis of the Infant Stimulation component is to "teach the mother to apply infant stimulation techniques in everyday contact with their young children", (Page 7, Continuation Application, June 24, 1977), is the most unique component of the MIT Program and is a positive approach to meeting community needs. The use of Adult Citizens (Foster Grandparents and Senior Citizens) is a unique approach to program service delivery. These Infant Stimulation Aides have many years' experience in practical life. It has been observed that they are accepted in the treatment homes. The children await their arrival with anticipation and the mothers greet them fondly and respectfully. Program operation regulations, conflicts, and rapid changes have required them to develop a variety of coping techniques. In some cases, feelings of uncertainty about their success in the program have been observed. One ISA stated "We feel the infant program is not wanted". They have been told not to make noise, keep atmosphere quiet while in the BCCC Preschool facility. Their arrival and departure time schedules change, as well as bus schedules to and from treatment sites are not maintained. They have not had a designated work space area wholly assigned to their needs. While at the BCCC site they work at the convenience of other program components.

It is recommended that the schedule for home treatment visits of the ISA be reviewed. They should not arrive at a treatment home before 10:00 A. M. and should be picked up promptly at the appointed time, no later than 12:00 noon. It has also been observed that this two hour period was too long unless half of the time was devoted to direct lesson presentation and the other half of the time become more informal. Even though the parent is to receive training techniques for working with their child, infants and toddlers have very

short attention spans. This required flexibility in presentation from direct instruction to a change of pace of a new activity. Also, if the ISA arrives too early anxiety develops on the part of the mother that her house is not tidy, children not dressed in some cases, and no breakfast in others. If the ISA remained in the home beyond scheduled time, lunch preparation was interfered with, because the mother felt it impolite to go to kitchen.

It is also recommended that the in-service training program for the ISA's be strengthened. These Aides have limited educational and language backgrounds and indicate a need for an intensive, extensive, long range in-service training program. They are eager to learn and have great willingness to absorb new information and learn teaching techniques. They are dependable and report to work early. They need the earnings from this job to assist them economically to maintain independence.

The program of activities for the siblings in the treatment homes should be examined. It was observed that the siblings often created conflicts and interference with the program intended for the infant. It is recommended that the ISA assigned to the sibling/siblings not attempt this activity in the same room where the infant/parent session is held. Perhaps the sibling/siblings activity could be at the kitchen table or on the front porch and yard, depending on the weather conditions. See Recommendation 2, under "Parent In-Service Training on Page 5 which would place the siblings in the Pre-School Component.

It is also recommended that the ISA's give a written evaluation feedback as a part of the overall program evaluation.

III. STAFF AND FACILITIES - INFANT COMPONENT

The job description and duty assignment of the Supervisor of the Infant Component should be examined. This staff member appeared fragmented and harrassed in her attempt to meet the demands of the job. A task analysis observed.

during the period of this report revealed the following tasks undertaken: (1) curriculum writer-infant treatment and siblings, (2) in-home supervisor of ISA's for infant treatment program and sibling activities, (3) in-service trainer for ISA's and coordinator and presenter of parent in-service sessions, (4) purchaser of materials and equipment, (5) counselor to parents, (6) counselor to ISA's, (7) social worker for family crisis outreach. This program would be strengthened with at least three full-time staff devoted to the Infant Component. It should be headed by a person with qualified experience and training in curriculum development of infant/toddler and early childhood programs. This staff position would be Coordinator of the over-all Infant Component who would also write curriculum, plan and coordinate all in-service training, and purchase materials and equipment. The second staff member would supervise the ISA's and the in-home treatment program and assist the Coordinator in curriculum writing and in-service training. The third staff person would be a Counselor/Social Worker to assist families, parents, ISA's, and perform social work duties to help families in crisis outreach needs.

The staff of this Infant Component should be provided with adequate private office and working space devoted entirely to this component and its activities and needs. At present supplies are scattered between two buildings, the Supervisor has a very small desk and work area in an office shared by a secretary and the MIT Program Supervisor. The ISA's group together wherever they find unoccupied space on a daily basis. This component needs adult height tables and chairs, and storage for materials and supplies accessible to its daily scheduled program needs.

IV. CURRICULA

The twenty-five developmental and behavioral objectives referred to on Page 8 of the November 8, 1977 EVALUATION REPORT should be listed as specifics.

Also, if these are from another Model, or sources, this should be stated. In addition, plans should be considered to organize for publication the curriculum lessons in an English and Spanish version.

The Continuation Application to the Hogg Foundation dated June 24, 1977, on Page 7, refers to "verbal" stimulation. It is highly recommended that the beginning lessons be written with emphasis on development of receptive language followed with verbal language emphasis in the progression of the lessons. Each daily plan should include a variety of suggested specific language stimulation ideas for use by the ISA and the parent.

The professional resources of the program for curriculum development use have been examined. It was found to be limited. The lack of professional curriculum resources indicated a need to purchase or secure a wide variety of materials for the curriculum writer's use. Many ideas and samples of available materials have been provided to the program during this consulting period.

The format of the "Lesson Plan" for parent/infant treatment and for siblings should be expanded to include items for:

1. At least three related activities per topic per lesson, arranged in order of difficulty. This would allow flexibility to meet developmental levels and varying infants/siblings.
2. Space should be provided on the form for
 - a. Review of last lesson before introducing new concept/topic for re-enforcement purposes.
 - b. Comments by the ISA.
 - c. Name of topic for next lesson visit.
 - d. Some type of handout to leave with the treatment parent giving ideas and activities to repeat and extend the day's lesson objective before next scheduled ISA visit.
 - e. Heading on form should give credit to MIT program by giving name at top of form.

3. Each lesson plan should include as many cultural aspects as possible, i. e. cultural rhythms, rhymes, fingerplays, stories and folk sayings. Mother's should be encouraged to use practical "in home" and "at hand" objects or activities to stimulate children; i.e., when preparing meals talk about round tortilla, round plates, small or large pans, washing clothes (soap, hot water, cold water, stop, start); buying groceries repeat names of items being selected; yardwork (watering, cutting, pulling, names of flowers, green grass, color of water hose, turn water on/off); clothes to be worn--colors of sheets, towels, etc.

V. PARENT IN-SERVICE TRAINING

The parent in-service training as specified as a component of the overall program should be carefully planned on a long range basis. A calendar should be written and given to each parent showing the dates and topics. In addition to the training program presently scheduled, the following additions are suggested:

1. Long range planning should include carefully chosen topics directly related to the on-going child treatment activities per lesson plans, keeping the training ahead of the lessons so that rhymes, stories, language development ideas can be included in the in-service workshop schedules. Many participation "hands-on" training sessions in English and Spanish should be planned. Cultural topics such as making tortillas, tamales should be included. It was observed that many of the young mothers did not know how to make tamales and that the Senior Citizens are eager to share their knowledge to help perpetuate these arts. This is another bringing together of three generations for cultural exchange.
2. Parent meetings should be at least monthly. The planning and delivery of a program for the children, while the mother's are in session, should become the responsibility of the pre-school component and teachers, with the ISA's acting as aides. The pre-school facility for these pre-scheduled dates should be arranged, and the pre-school teachers should plan the day's activities. Many parents want their older children in the pre-school component.
3. A meeting room adequate for in-service training purposes should be available on a prior schedule of time and date for use. This space should be free of interference from other program components, telephone calls, and the Coke machine traffic.
4. The socials planned presently should be encouraged and expanded. This should be done on a long range basis with approval from the Director and in written form to eliminate last minute changes and misunderstandings. These socials (seasonal holiday) foster excellent relationships to develop new friends, exchange ideas, and get "out of the house" opportunities. These new field trip type experiences for the mothers, the ISA's and the children are valuable in building strong educational background experiences.

5. The Director and other staff associated with the total program should attend some of these meetings.

VI. GENERAL OBSERVATIONS AND SUGGESTIONS

In addition to the above comments and recommendations, there follows some general suggestions and ideas for consideration in addition to that already being attempted in the program. These are not listed in any priority.

1. Every contact with the treatment homes, parents and children should be a learning experience in every aspect, i. e. serve snacks which provide new language and other learning experiences for the parents and the children. (Don't serve red punch and same old cookies every occasion). Plan new experiences such as cutting and tasting new fruits and vegetables, pop corn, spread peanut butter, spread jam on crackers, so that the five senses can be developed along with new language experiences such as size, shape, color, etc.
2. Evaluate the impact of the siblings on the success of the treatment program. Consider bringing them into the preschool program to improve the environment for success of the infant program in the home.
3. Divide the catchment area into quadrants for bus scheduling improvement. Schedule program delivery in one quadrant per morning eliminating the mileage and distance of scattered locations each day.
4. If treatment program is to be continued for research purposes, methods of evaluation should be stabilized on a pre and post test basis, using the same instrument for each. Also, a full quota of treatment subjects should be maintained throughout the research period.
5. Improve relations between staff of pre-school program and the Infant component to eliminate misunderstandings and sometimes harassment of the Infant component over use of space, storage, equipment and materials.
6. Provide improved office space, program storage, in-service training facilities space so as to give the Infant component more support and status in the overall MIT Program. This is an unusual program and should be expanded, enriched and supported. Parenting skills for young mothers is a stepping stone for the family and the children when attend public school.
7. Use Spanish as a developmental language as the individual homes reflect. Move into English and maintain the Spanish as expediently as the children can be taught as preparation for entering public school. This might create need for certain qualifications for the ISA's to be fluent in two languages.
8. Membership in professional organizations such as the San Antonio Association for the Education of Young Children (SAAEYC) is highly recommended. This would provide good workshop opportunities for staff in-service training not presently observed in the MIT program. Also, this membership would provide publications containing current professional articles by noted early childhood professionals for staff reading.

9. Staff in-service training should include field trips and visits to other operating programs. This would provide new program ideas as well as self evaluation background.
10. A quality A-V presentation of the program in action would be an excellent resource for evaluation and community public relations purposes.
11. Encourage parents to use educational T-V programs for child viewing in the home, such as Sesame Street, Carrascolendes Clown on Ch. 41. These provide good language models and are educational.
12. Investigate a "Toy Lending" program approach in the program. This would provide much needed appropriate books, records and materials in the homes on a loan basis with instruction on their use with the children.
13. Consider publication of a newsletter in English and Spanish to be mailed to the parents on a regular basis.

VII. CONCLUSION

The comments and recommendations in this consulting report are based on direct observations and participation as stated in the introductory summary report. Specifics, clarification, or rationale for any ideas or suggestions herein are available for discussion. The Consultant would like to express appreciation for the challenging experience of assisting in this program endeavor. It is hoped that the comments and recommendations contained herein will be accepted in the spirit of program improvement to children and parents. A special thanks is extended to the entire staff of the MIT site, and to the treatment parents and children who welcomed my presence in their homes. Last, but not least, to the Adult Citizens (ISA's) who so enthusiastically participated in learning new ideas to improve themselves, who proved they can absorb training, whose attitudes changed from "we can't do that, we can't use that, we can't make noise" to a positive reaction of "what are we going to do today, or what will we learn at the next in-service meeting?"

APPENDIX F

Consultants' Evaluation of Preschool Curriculum

CURRICULUM DESIGN

1. Use Of Child Growth And Development Principles

MIT Approach

The MIT Curriculum design does not address learning as it occurs naturally. It seems to employ a "hit and miss" approach to children's learning - somewhat like a cafeteria line where one can select anything and everything, but not necessarily a complete meal.

Alternative Approach

Children's growth and development proceeds in a very orderly "complete meal" fashion, and each of the areas of growth and development must be addressed in order to develop the total child. Generally the areas of development are divided into language, cognitive, psychomotor, and socio-emotional development.

2. The Need For An Integrated Approach To Learning

MIT Approach

MIT does not follow an integrated approach to learning; rather it employs the use of activities which purport to teach only one skill at a time, generally a cognitive skill, and negating completely the need for psychomotor or socio-emotional development. Further it makes no provisions for a child's language preference.

Alternative Approach

The four areas of development, language cognition, psychomotor and socio-emotional development, cannot be separated, for a child can't talk without the ideas to talk about, he can't converse with others if he is too shy to mix, and he can't follow directions if he can't comprehend the meaning of statements.

Because these actions are so closely linked together, it is possible for a child who participates in a learning activity to simultaneously develop a number of skills in each of the areas of development.

-
3. The need for well defined, multi-level objectives or skills, listed in a sequentially arranged order and categorized according to areas of development.
-

MIT Approach

MIT has identified a number of excellent skills which children should be learning. Most of the skills are well written and encompass the basic concepts appropriate for the age-group the MIT Preschool Program serves, but almost all of the skills are written at the same developmental level, offering only one type of cognitive skill development. Also, skills #36, 52, 53, 56 & 57 are inappropriate for 3-5 year olds, while #26, 27, 44, 45, 54, 55, 58 and 67 do not specify how the skill can be observed. Specifically, what does "to know" or "to understand" mean? Further, there is no way of knowing which skills should be taught first as they are not sequentially arranged.

Alternative Approach

Developmental skills or learning objectives should be so well-defined, and so accurately categorized and sequenced that individualized prescribed learning can easily be planned for children.

There are a number of steps which should be taken by MIT staff in order to make the MIT skills checklist more workable.

- Step 1. Review each identified skill and clean it up if it needs it - replace all arbitrary words such as "understand", "knows", "values", etc with specific terms such as "points to" and "child labels", or "describes".
- Step 2. Categorize each of the skills according to the areas of development
- language/concepts cognitive process
 - psychomotor - gross motor
fine motor
 - socio-emotional - personal behavior
social behaviors

Example:

- a) math skills - cognitive processes
- b) new words - cognitive language
- c) sharing - social behavior
- d) cutting - fine motor

There are many simple ways to categorize according to areas of development. Use that which is easier for your staff.

- Step 3. For each area of development, arrange the skills by order of difficulty beginning with the easiest and moving to the most difficult.
- Step 4. Review each list of skills and see what's missing. Are there enough variations of skills? Are there enough levels of difficulty? What other skills should be added?
- Step 5. Add sufficient skills for each area of development to "round out" the curriculum.

-
- 4. The need for age and content appropriate learning activities correlated to the skills checklist.
-

MIT Approach

MIT attempts to correlate learning activities to skills in precisely the manner which is necessary - at least one activity per skill, but a cross-reference checklist of activity to skill is not provided, therefore forcing teachers to guess which activities go with certain skills. Further, once additional skills have been added to the original checklist, there will be a need for more activities. Ideally, there should be several activities per skill.

Alternative Approach

A good way of expanding the activity file and making the activities go further would be to take each activity and rewrite it according to a format such as this one:

MIT Preschool Class. Activity Card # _____

Use this card for developing the following skills:

Language # _____

Cog. Process # _____

Psycho-Motor # _____

Socio-emotional # _____

Activity -

Materials needed -

Procedure -

Evaluation of activity -

This format provides for correlating each activity to several skills as well as adding the dimension of evaluation which tells the teacher how to judge if the child has learned the skills in the activity.

A cross reference list could be designed so that teachers could find exactly which activity cards teach each skill. It might read as follows:

LANGUAGE SKILLS	USE ACTIVITY CARDS #			
1. _____	5,	10,	24,	73
2.	6,	14,	42,	60
3.	1,	2,	4,	9

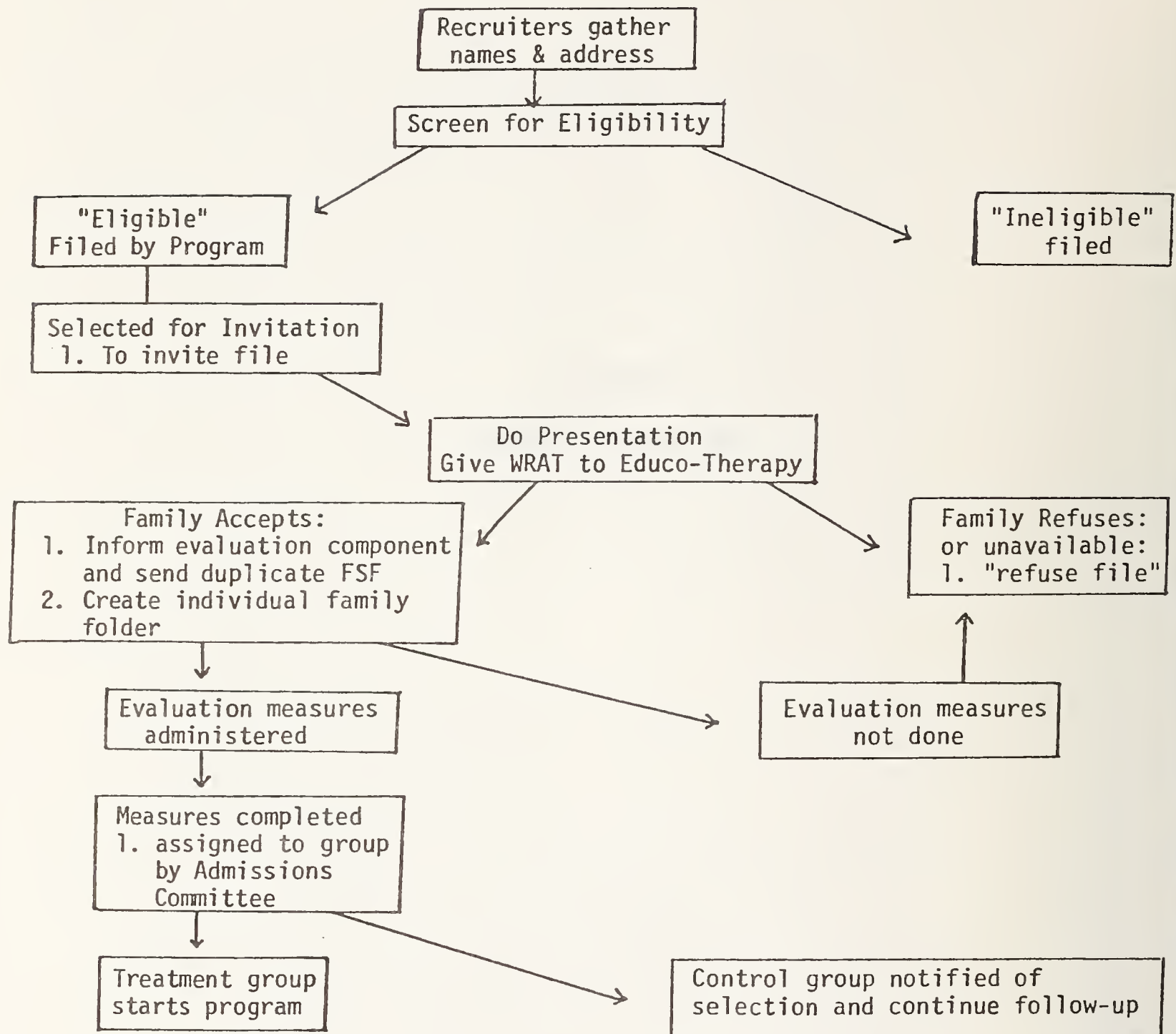
Preschool Developmental and Behavioral Objectives

1. Matches basic colors: red, yellow, blue, green, orange
2. Matches additional colors: brown, purple, black, white
3. Identifies basic colors: red, yellow, blue, green, orange
4. Identifies additional colors: brown, purple, black, white
5. Repeats simple sentences
6. Moves from left to right when turning pages
7. Moves from left to right when using crayons
8. Repeats 3-word pattern
9. Repeats 3-number pattern
10. Matches shapes: circle, square, triangle
11. Matches additional shapes: rectangle, oval, diamond
12. Identifies shapes: circle, square, triangle
13. Identifies additional shapes: rectangle, oval, diamond
14. Identifies size differences: big-little, short-long
15. Identifies additional size differences: thin-fat, light-heavy
16. Categorizes items by color and shape
17. Categorizes items by other qualities
18. Copies a 3-item pattern using visual clues
19. Copies a 3-item pattern from memory
20. Identifies textures by touch
21. Discriminates weights
22. Demonstrates position orientation concepts: in, out, up, down, behind
23. Demonstrates additional position orientation concepts: under, over, in front of, on top of
24. Identifies and uses words opposite in meaning: hot-cold, up-down, in-out, off-on, loud-soft
25. Says first and last name
26. Knows age
27. Knows birth date
28. Recognizes own name in writing
29. Speaks in meaningful sentences
30. Understands that pictures and books tell stories
31. Describes action shown in pictures
32. Identifies body parts
33. Identifies facial features
34. Identifies by taste: sweet, sour, salty, bitter
35. Identifies by odor
36. Draws a human figure showing head, arms, legs and facial features
37. Identifies the following animals: cat, dog, fish, bird
38. Identifies additional animals: sheep, turtle, duck, pig
39. Identifies additional animals: chicken, cow, horse, rabbit, turkey
40. Identifies wild animals: lion, tiger, bear, monkey
41. Identifies additional wild animals: giraffe, elephant, camel
42. Identifies community helpers by uniform, tools and functions: fireman, policemen, postman, doctor, nurse
43. Identifies additional community helpers: teacher, painter, carpenter, mechanic, store clerk
44. Understands some concepts of time: day, night, today, tomorrow, yesterday
45. Understands weather and seasons: sunshine, cold, wind, rain, snow, winter, summer
46. Identifies fruits: banana, apple, grapes, orange, lemon, grapefruit

47. Identifies vegetables: tomato, beans, peas, carrots, potato, corn
48. Identifies kitchen terms: melt, boil, freeze, mix, float, bake
49. Knows family members and basic roles
50. Identifies basic furniture pieces and their location in a home
51. Classifies and names sets with common characteristics: animals, vegetables, toys
52. Counts to 5
53. Counts to 30
54. Counts from 1 to 5 with understanding
55. Counts to 10 with understanding
56. Identifies coins: penny, nickel, dime, quarter, half dollar
57. Knows value of coins
58. Knows common finger games, nursery rhymes, songs
59. Draws with pencil or crayon a person and a circle
60. Draws a cross
61. Draws a square
62. Draws a triangle
63. Draws diamond
64. Draws a short and a long line
65. Works a puzzle of 10-15 pieces
66. Manipulates scissors correctly
67. Understands and uses correctly paper, pencils, crayons
68. Balances on one foot
69. Hops on one foot
70. Jumps
71. Skips

APPENDIX G
Recruitment Package

FLOW CHART
Procedures for Enrollment



SCREEN FOR ELIGIBILITY

The MIT goals are to provide the three service programs and to evaluate the effectiveness of the programs. Program participation and evaluation requirements impose restrictions on the families we can enroll. Generally, we are looking for the sort of family in which the mother or the primary care giver have the time and inclination to participate in the MIT Program.

GENERAL REQUIREMENTS FOR ENROLLMENT

1. Child must meet age requirements.
2. One child per family is eligible for the MIT Programs.
3. Family must live within target area.
4. Family must not-plan to move out of census tract within the year.
5. Family is not eligible if the mother or primary care giver work to the extent that they can not participate in all activities required by the program.
This also includes a mother or primary care giver with the expressed intention to find full-time work.
6. Physical or mental illness or abnormality in care giver or child which would seem highly likely to have a strong negative influence on the child's development.
7. Situations in which the child does not live with the primary care giver; e.g., child stays with grandmother during the day, but stays someplace else with parents at night.
8. No child may participate if they are currently enrolled in this years MIT programs.

CHECKLIST FOR FIRST VISIT

- _____ Introduce yourself as a member of the Barrio CLinic.
- _____ Explain your interest in finding families eligible for the Barrio Clinic or escuelita.
- _____ Describe briefly the program for which the child is eligible for. (See Attachment A)
- _____ If they are not interested, they will still be eligible for services available at the Barrio Clinic.
- _____ Explain that if they are interested, you must fill out the Family Survey Form.
- _____ Fill out the FSF completely.
- _____ Explain that if they are not eligible, they will be informed by September 1, 1977.
- _____ Explain that if they are eligible that they will need to be interviewed and have the program explained in detail to them.
- _____ Explain that the interview will fully explain the program and that it will be conducted by Mr. Armando Sepulveda.
- _____ Ask to see if they have any time preference for their interview.
- _____ Thank them for their time and remind them of Armando's upcoming visit.

Checklist for Presentation

- _____ Introduce yourself and explain that you are from the Barrio Clinic's school.
- _____ Explain that the MIT Program or escuelita is part of the Barrio Clinic.
- _____ Explain that the family has an opportunity to participate in the _____ Program.
- _____ If eligible for Educo-Therapy, administer the WRAT test.
- _____ After administering the WRAT, determine reading skills on basis of WRAT score.
- _____ If not eligible because of WRAT score, either have parent sign consent form to refer child to other school programs or encourage the parents to continue to further the reading skills in their children.
- _____ Explain the rationale and objective of the program for which the child is eligible for.
- _____ Describe in detail the program for which the child is eligible for.
- _____ Explain the need for treatment and control groups. (Stress fairness to all children, and fairness to our own limitations to offer services.)
- _____ Explain the procedure of being selected into the treatment or control group.
- _____ Explain and describe the testing and questionnaires to be given to the child and family.
- _____ Explain some test will be administered in the months of September and October.
- _____ Explain that the treatment and control group will be randomly selected approximately in mid-October and that they will be informed about the selection at that time.
- _____ Explain the consent form to have their child participate in the study of the MIT Program. (Have them read consent form and sign it.)
- _____ Give telephone numbers of Billie A. Becker (434-0514) and Juan C. Gonzalez (696-6391) for any further information.

Infant Component

Objective is to stimulate the child through an increase in mother-child interaction.

Rationale is that verbal stimulation, playing, and touching are of value and importance in the development of all children.

The program will attempt to teach and encourage the mothers to apply verbal, visual and tactile stimulation in everyday contact with their young children.

The program will attempt to develop the parents' awareness and commitment to this aspect of parenting, as well as to further the concept of parent-as-teacher.

The program is designed for eighteen treatment and 26 control group infants, age 8 to 12 months as of September 1, 1977.

They will enter the program November 1, 1977 and will continue for an 8 month period.

Stimulation will be a home visit made by Infant Stimulation aides (grandmothers). Homevisits will be under direct supervision of the early Childhood Specialist.

The visits consist of 2 Infant Stimulation Aides making weekly visits of 1 1/2 to 2 hours sessions to each home.

During each visit the mother will be shown and encouraged to practice interaction techniques aimed at stimulating her child.

One grandmother will be solely responsible for the conduct of the lesson plan and a second will seek to minimize distractions by presenting other educational toys and activities to the other siblings while the lesson plan is presented.

Mothers will also attend informational meetings twice monthly. Meeting topics will focus on day to day needs of a child, health, nutrition and good parenting skills.

Preschool Component

Objectives of the program are:

1. Develop school skills
2. Stimulate and measure language proficiency
3. Encourage family involvement

Emphasis will vary according to the various ages such that the eldest group will receive the most intensive preparation for school.

General interest is to: 1) Teach the child appropriate school socialization skills, such as working with groups of people, or focusing his attention on a teacher for a period of time, or learning to sit still and follow directions. 2) Teach parents that they can influence their child's education through their involvement with him in their home.

Three age subdivisions will exist:

Group A will consist of 10 children from 3.0 to 3.7 years.

Group B will consist of 16 children from 3.8 to 4.6 years.

Group C will consist of 16 children from 4.7 to 6.0 years.

The program is designed for _____ treatment and _____ control group children, aged 3 to 6 years as of September 1, 1977.

They will enter program November 1, 1977 and will continue for an 8 month period.

Treatment for group A will consist of one half-day class per week at the Barrio school and one weekly home visit for 1/2 an hour by preschool teaching aides. The weekly class will concentrate on language stimulation with some emphasis on formal school skills. The home visit will teach and encourage the mothers to stimulate the language skills, as well as stimulate other developmental areas of her child in the program. The home visits will be made by the preschool tutors.

Treatment for group B will consist of two half-day class sessions per week at the Barrio school and also one weekly home visit of 1/2 hours by a preschool teaching aide. The weekly class sessions will concentrate on both language stimulation and school skills equally. The preschool aide will teach and encourage each mother to teach her children basic learning skills and stimulate language activity. Monthly meetings will also be held for the mothers of children in treatment groups A and B.

Treatment for group C will be three weekly half-day classes at the Barrio school, and a monthly meeting of all mothers in group C to discuss parenting topics and encourage parental involvement in the preparation of school skills. The classes will concentrate on developing school skills.

Educo-Therapy Component

The objectives of the program are:

- 1) provide language stimulation
- 2) improve public school performance
- 3) increase self-concept
- 4) involve parents in child's education more

Rationale is that poor reading skills are assumed to lead to difficulties in school performance and attendance, with a corresponding lowering of an individual's self-esteem.

The program is designed for 4th, 5th, and 6th graders with reading difficulties. The reading level will be determined by the score of the WRAT test.

The program is designed for 32 treatment and 36 control group children, aged from 10 to 12 years as of September 1, 1977.

They will enter the program November 1, 1977 and will continue for a 7 month period.

Treatment will consist of two weekly classes for two hours. The emphasis of the classes will be on teaching basic reading skills.

Students will be rewarded for achieving group goals such as a high group performance or good attendance. Students will also be rewarded for achieving certain individual goals, such as demonstrated mastery of a lesson plan.

There will be parent monthly meetings. Monthly meeting will consist of progress reports, group discussions on the parental involvement in their children's education.

FAMILY SURVEY FORM

Date: _____ BCCHCC No. _____

Child's Name: _____ Sex: _____ D.O.B. _____

Father's Name: _____ Age: _____ D.O.B. _____

Mother's Name: _____ Age: _____ D.O.B. _____

Address: _____ Phone: _____

Own: _____ Rent: _____ Planning on moving within the year: _____

No. of Children: _____ Children Living at Home: _____

List additional children and others living in the home below and on back of page.

Name: _____ Sex: _____ Age: _____ Relationship: _____

Name: _____ Sex: _____ Age: _____ Relationship: _____

Name: _____ Sex: _____ Age: _____ Relationship: _____

Name: _____ Sex: _____ Age: _____ Relationship: _____

Name: _____ Sex: _____ Age: _____ Relationship: _____

Who is primary care giver for the children? _____

Marital Status: Single: _____ Married: _____ Widowed: _____ Divorced: _____ Separated: _____

Father's Education - Last grade completed _____

Mother's Education - Last grade completed _____

Father's Occupation: _____ Company: _____

Mother's Occupation: _____ Company: _____

Medical Problems (Specify) Student: _____

Others (observation) _____

Primary language used by adult-to-adult: Spanish English

Primary language used by adult-to-child: Spanish English

Primary language used by child-to-child: Spanish English

Time preference for presentation: _____

Are the children enrolled in any other educational programs?(Specify) _____

Observations: _____

Any other comments add to back of page.

CONTACT ATTEMPTS

Date

Worker

Results

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Is family eligible for presentation? Yes _____ No _____

Was presentation of project made to family? Yes _____ No _____

If no, why not? _____

Did family agree to participate in project? Yes _____ No _____

If no, why not? _____

If family is in some way exceptional, please note here: _____

Additional children and others living in the home:

<u>Name and relationship</u>	<u>Sex</u>	<u>D.O.B.</u>	<u>Age</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Consentimiento Paterno Para La Participación en un Estudio
Del Programa Infantil De Terapia Multiple

Estan invitados a participar en el estudio del programa Infantil del proyecto MIT. Esperamos aprender qué tan eficiente es el programa para llenar las necesidades de los niños de la comunidad.

Si usted decide participar, querríamos (1) hacerle algunas preguntas sobre usted y su familia (2) administrar un examen de desarrollo a su niño (3) observarle a usted y a su niño en un experimento. Desearíamos hacer esto por primera vez ahora y por segunda vez durante el próximo verano.

El propósito de esta información es determinar si los niños se benefician con el Programa Infantil del proyecto MIT. Esto se determinará comparando la información de los niños enrolados en el programa este año, con niños que no han sido enrolados. La elegibilidad para enro llamiento se determinará por ser examinado en el Centro de Salud Infantil del Barrio y tambien tener el deseo de participar en las actividades del Programa Infantil de MIT. (Explicación verbal del plan del programa, de la selección del tratamiento y de grupos de control).

Ninguna información personal obtenida en el estudio será conectada al individuo. A los niños se les clasificará solamente como enrolados o no-enrolados en el programa MIT. Esta información solo estará al alcance del personal del programa MIT y del personal del Instituto de Investigación de Servicios de Salud que estará encargado del estudio.

Necesitaremos aproximadamente dos horas de su tiempo para obtener esta información. No se esperan riesgos de ninguna clase por la participación en el estudio.

No podemos garantizar ni prometer que usted recibirá algún beneficio del estudio.

Si decide participar, usted puede retirar su consentimiento y descontinuar su participación en cualquier momento sin ningún prejuicio.

Si decide no participar o retirar su consentimiento, usted todavia va a estar elegible para los servicios del Centro de Salud Infantil del Barrio.

Su firma indica que usted ha decidido participar después de haber leído la información anterior.

Fecha

Testigo

Firma del Padre o Guardián

Firma del Investigador

PARENTAL CONSENT FOR PARTICIPATION IN A STUDY OF
THE INFANT PROGRAM OF THE MULTIPLE IMPACT THERAPY (MIT) PROJECT

You are invited to participate in a study of the Infant Program of the MIT project. We hope to learn how efficient the program is in meeting the needs of children in this community.

If you decide to participate, we would like to (1) ask you some questions about you and your family; (2) conduct a developmental test of your child; and (3) observe you and your child in an experimental task. We would like to do this once now and once next summer.

The purpose of this information is to determine if children benefit from enrollment in the MIT Infant Program. This determination will be made by comparing information on children enrolled in the program this year, to children who are not enrolled. Eligibility for enrollment is determined by having been screened at the Barrio Child Health Care Center and a willingness to participate in activities of the MIT Infant Program. (Verbal explanation of the program curriculum and selection of treatment and control groups.)

Any personal information obtained in this study will not be connected with any individual. Children will be identified only by being enrolled or not enrolled in the MIT Program. This information will be made available only to MIT staff and research personnel from the Health Services Research Institute who are conducting the study.

We will require approximately two hours of your time to gather this information. There are no expected risks involved in participation in the study.

We cannot, and do not, guarantee or promise that you will receive any benefits from this study.

If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time without prejudice. If you decide not to participate or withdraw your consent, you will still be eligible for services at the Barrio Child Health Care Center.

Your signature indicates that you have decided to participate, having read the information provided above.

Date

Witness

Signature of Parent or Guardian

Signature of Investigator

Daily Log

Week from _____ to _____

Name _____ Date _____

	Completed FSF	Attempted Contacts	Actual Contacts
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Totals			

DAILY LOG FOR PRESENTATIONS

Week from _____ To _____

	Presentation Given	Accept Program	Refuse Program	Not Eligible
MONDAY				
TUESDAY				
WEDNESDAY				
THURSDAY				
FRIDAY				
TOTALS				

APPENDIX H
Recruitment Cost Analysis

Time Spent on M.I.T. Recruitment

(July 1, 1977 to February 15, 1978)

M.I.T. Staff Time

895 hours = 6 recruiters
720 hours = 3 San Antonio Youth Organization volunteers
300 hours = M.I.T. coordinators
140 hours = clerk
67 hours = driver
2,122 hours = total M.I.T. staff time

Type of Assistance

1,227 hours (57.82%) = Supportive role (supervision, clerical,
895 hours (42.18%) = Direct recruitment bus driver)
2,122

HSRI Staff Time

844 hours = 1 recruiter
246 hours = HSRI evaluation coordinator
1,090 hours = Total HSRI staff time

Type of Assistance

246 hours (22.57%) = supportive (supervision)
844 hours (77.43%) = direct recruitment
1,090

Total MIT and HSRI Staff Time

2,122 hours = MIT recruitment time
1,090 hours = HSRI recruitment time
3,212 hours = Total (3,212 hours = 1.54 man years -- 80.3 40 hour
working weeks)

Type of Assistance

1,473 hours (45.86%) = Supportive role
1,739 hours (54.14%) = Direct recruitment
3,212 hours (100%) = Total recruitment

Total Number of Children or Families

813 = Total children or families in attempt for recruitment for project.
216 = Total children or families agreeing to participate
147 = Total children active in study as of February 15, 1978
Hours per Child

3.95 = hours per child or family in attempt at recruitment for project
14.87 = hours per child or family agreeing to participate
21.85 = hours per child or family still active in project
as of February 15, 1978

Cost for Recruitment

(July 1, 1977 to February 15, 1978)

\$ 5,811.00	Salaries for MIT staff
325.00	Mileage cost

\$ 6,136.00	Total MIT cost
-------------	----------------

\$ 5,675.00	Salaries for H.S.R.I. staff
384.00	Mileage cost

\$ 6,059.00	Total H.S.R.I. cost
-------------	---------------------

\$ 6,136.00	Total MIT cost (13.55% MIT budget)
6,059.00	Total H.S.R.I. cost (20.33% HSRI budget)

\$ 12,195.00	Total Recruitment cost
--------------	------------------------

\$ 14.13 per total cases in attempt for recruitment for project.

\$ 56.46 per total child or families agreeing to participate in project

\$ 82.96 per child or family active in project as of February 15, 1978

Cost per Component

	# Cases Available for Project	% Total Case	Cost per Component
Infant	191	22.13%	\$ 2,699
Pre-A	100	11.59%	1,414
Pre-B	159	18.42%	2,246
Pre-C	194	22.48%	2,741
Educo-Therapy	219	25.38%	3,075
	<hr/> 863	<hr/> 100.00%	<hr/> \$12,195

MIT cost figures based on:

\$2.30 per hour for MIT recruiters, tutors, SANYO volunteers, bus driver
 5.30 per hour for MIT coordinator
 .13 per mile

H.S.R.I. cost figures based on:

\$4.96 per hour for H.S.R.I. recruiter
 6.05 per hour for H.S.R.I. coordinator
 .18 per mile

INFANT STIMULATION COMPONENT

July 1, 1977 to February 15, 1978

191 = Eligible Families

51	(26.7%)	=	Moved out of census
*44	(23.04%)	=	Enrolled in Infant Stimulation Component
28	(14.66%)	=	No contact - out of census
19	(9.95%)	=	Attempted to contact at least 3 times
17	(8.9%)	=	Not interested
15	(7.85%)	=	Mother works
10	(5.25%)	=	Moved out of city
6	(3.14%)	=	Enrolled in other programs
1	(0.52%)	=	Incorrect address
<hr/>			
191	(100%)	=	Families

191 = Families screened 9-76 to 6-77

79 = Families screened 7-77 to 2/15/78

Entry Requirements

1. Randomly selected from the infant pool of the Barrio Clinic.
2. Mother's commitment to participate in the total program.
3. Child must be between the ages of 7-12 months as of September 1, 1977.

PRESCHOOL COMPONENT - A

July 1, 1977 to February 15, 1978

100 = Eligible Families

*28	(28.0%)	=	<u>Agreed to participate in Preschool - A</u>
26	(26.0%)	=	No contact - out of census
20	(20.0%)	=	Moved out of census
8	(8.0%)	=	Enrolled in other programs
6	(6.0%)	=	Not interested
6	(6.0%)	=	Attempted to contact at least 3 times
2	(2.0%)	=	Mother works
2	(2.0%)	=	Moved out of city
1	(1.0%)	=	Sibling enrolled last year
1	(1.0%)	=	Child is ill
100	(100%)		Families

100 = Families screened 9-76 to 6-77

14 = Families screened 7-77 to 2+15-78

Entry Requirements

1. Randomly selected from the Preschool pool of the Barrio Clinic.
2. Mother's commitment to participate in the total program.
3. Child must be between the ages of 3 to 3.7 years.

PRESCHOOL COMPONENT - B

July 1, 1977 to February 15, 1978

159 = Eligible Families

*49	(30.82%)	=	<u>Agreed to Participate in Preschool - B</u>
28	(17.60%)	=	Moved out of census tract
20	(12.58%)	=	Outstanding (have not been contacted at least 3 times)
20	(12.58%)	=	No contact, out of census tract
14	(8.81%)	=	Enrolled in other programs
9	(5.66%)	=	Attempted to contact at least 3 times
6	(3.77%)	=	Mother works
6	(3.77%)	=	Not interested
3	(1.89%)	=	Moved out of city
3	(1.89%)	=	Sibling enrolled last year
1	(0.63%)	=	Child is ill
159	(100%)		

159 = Families screened 9-76 to 6-77

41 = Families screened 7-77 to 2-15-77

Entry requirements

1. Randomly selected from the Preschool pool of the Barrio Clinic.
2. Mother's commitment to participate in the total program.
3. Child must be between the ages of 3.8 to 4.6 years.

PRESCHOOL COMPONENT - C

July 1, 1977 to February 15, 1978

144 = Eligible Families

*39	(25.69%)	=	No contact - out of census tract
27	(27.08%)	=	<u>Agreed to participate in Preschool - C</u>
22	(15.28)	=	Moved out of census tract
14	(9.74%)	=	Enrolled in other programs
12	(8.33%)	=	Attempted to contact at least 3 times
12	(8.33%)	=	Not interested
3	(2.08%)	=	No contact - incorrect address
2	(1.39%)	=	Moved out of city
2	(1.39%)	=	Sibling enrolled last year

144

144 24 screened 6-75 to 5-76
 75 screened 6-76 to 6-77
 42 screened 7-77 to 2-15-78

Entry Requirements

1. Randomly selected from the Preschool pool of the Barrio Clinic.
(scored low on the DDST)
2. Mother's commitment to participate in the total program.
3. Child must be between the ages of 4.7 to 6.0 years.

EDUCO-THERAPY

July 1, 1977 to February 15, 1978

219 = Families contacted or eligible

69	(31.51%)	= No contact - out of census
*56	(25.57%)	= <u>Agreed to participate in Educo-Therapy</u>
38	(17.35%)	= Did not meet criteria
21	(9.59)	= Enrolled in other program
16	(7.31%)	= Not interested
8	(3.65%)	= Sibling recruited for other program
4	(1.83%)	= Moved out of census tract
3	(1.37%)	= Enrolled last year
2	(0.91%)	= Attempted contact at least 3 times
2	(0.91%)	= No contact - incorrect address
<hr/>		
219	(100%)	

219 = Screened 6-76 to 6-77

18 = Screened 7-77 to 2-15-78

Entry Requirements

1. Randomly selected from the Educo-Therapy pool of the Barrio Clinic.
(scored low on the Wide Range Achievement Test)
2. Mother's commitment to participate in the total program.
3. Child must be at least at the 2.5 grade reading level.
4. Child must have at least 2.0 reading lag.
5. Child must not be higher than the 6th grade.

Appendix I

Parent Questionnaire and Responses to Questions
for both Experimental and Control Group Children

Appendix I

Parent Questionnaire and Responses to Questions for both Experimental and Control Group Children

The responses to most of the questions are shown in a table just following the English version of the question according to the group. The number of families responding to each question are shown in parenthesis next to the abbreviation for the group name. In questions 33 through 70, the sample sizes are the same as for question 33.

The groups are abbreviated as follows:

- | | | |
|--------|---|--|
| Infant | = | Those infants ages 6-18 months of age chosen for the study. In the third year of the project, these children were <u>not</u> necessarily developmentally lagging at the beginning. |
| PreA | = | The preschool children age 2-3 that repeatedly scored low in the Denver Development Screening Test (DDST). |
| PreB | = | The preschool children age 3-4 that repeatedly scored low on the DDST. |
| PreC | = | The preschool children age 5-6 who repeatedly scored low on the DDST. |
| ET | = | The Educo-Therapy group who repeatedly scored two years below grade level on the Wide Range Achievement Test. |

My name is _____ and I am with the program at the Barrio Clinic. We are conducting interviews to better understand the people and the community of this area. We would like to ask you about your family and your attitudes and opinions about education. Do you have some time to answer a few questions?

Yo me llamo _____ y estoy con el programa de la Clinica del Barrio. Estamos haciendo entrevistas para mejor comprender las personas y la comunidad de esta región. Queremos hacerle varias preguntas sobre su familia, sus actitudes y opiniones acerca la educación. ¿Tendría usted tiempo para contestar algunas preguntas?

_____ Yes

_____ No, come back later (Specify time. _____)

_____ Refuses to be interviewed

Interviewer's Name _____

Respondent's Name _____

Language of Interview: (1) English (2) Spanish (3) Both

(Questions 1 and 2 for treatment group only.)

1. Which of your children attend the Barrio Program? _____

1. ¿Cuales de sus hijos han asistido el programa de la Clinica del Barrio?

2. Why did you want your children to attend the Barrio Program? _____

2. ¿Por qué quiso que sus hijos asistieran el programa? _____

3. Do you think that it will be easier or harder for your children in the bilingual class than it would be in another class?

Infant PreA PreB PreC EducoTherapy

1.easier _____
 2.harder _____
 3.about the same _____

Why? _____

3. ¿Piensa usted que va a ser más fácil o más difícil para sus hijos en un clase bilingüe que en otra clase?

1.más fácil _____
 2.más difícil _____
 3.igual _____

¿Por qué? _____

4. What do you hope your children will gain from attending bilingual classes?

4. ¿Qué espera que ganen sus niños en asistir clases bilingües? _____

5. In what language did you receive most of your education?

	(24)	(9)	(13)	(27)	(27)	(100)
	Infant	PreA	PreB	PreC	E.T.	Total
1. Only Spanish	29.2	44.4	53.8	25.9	29.6	33.0
2. Mostly Spanish	0.0	11.1	0.0	3.7	14.8	6.0
3. Only English	54.2	11.1	23.1	63.0	18.5	39.0
4. Mostly English	12.5	22.2	15.4	3.7	33.3	17.0
5. English and Spanish Equally	4.2	11.1	7.7	3.7	3.7	5.0

5. ¿En qué idioma recibió usted la mayoría de su educación

1. Solamente español
 2. La mayoría español
 3. Solamente inglés
 4. La mayoría inglés
 5. Inglés y español igualmente

6. In what language did your husband receive most of his education?

	(22)	(9)	(13)	(24)	(26)	(94)
	Infant	PreA	PreB	PreC	E.T.	Total
1. Only Spanish	31.8	33.3	7.7	37.5	30.8	29.8
2. Mostly Spanish	0.0	11.1	0.0	0.0	15.4	5.3
3. Only English	59.1	11.1	38.5	58.3	19.2	40.4
4. Mostly	9.1	22.2	23.1	0.0	26.9	14.9
5. English and Spanish equally	0.0	22.2	30.8	4.2	7.7	9.6
	100.0	100.0	100.0	100.0	100.0	100.0

6. ¿En qué idioma recibió su esposo la mayoría de su educación?

1. Solamente español
2. La mayoría español
3. Solamente inglés
4. La mayoría inglés
5. Inglés y español igualmente

7. What was the last year which you completed in school?

1	2	3	4	5	6	7	8	9	10	11	12		(25)	(9)	(13)	(26)	(29)	(100)
												Years Ed.	Infant	PreA	PreB	PreC	E.T.	Total
												1-4	16.0	33.0	23.1	19.1	32.4	19.0
												5-8	40.0	22.0	38.5	34.6	18.5	36.0
												9-11	28.0	44.0	34.6	37.5	29.6	31.0
												12	16.0	0.0	7.7	23.1	19.5	13.0
												> 12	0.0	0.0	0.0	3.8	0.0	1.0

- 2 years of college
- 4 years of college
- graduate school

7. ¿Cuál fue el último año que cumplió usted en la escuela?

- 1
 - 2
 - 3
 - 4
 - 5
 - 6
 - 7
 - 8
 - 9
 - 10
 - 11
 - 12
- 2 años de colegio
 - 4 años de colegio
 - graduate school (más de 4 años de colegio)

8. Circle the last year which your husband completed in school:

1	2	3	4	5	6	7	8	9	10	11	12	I don't know						
												(22)	(9)	(11)	(23)	(21)	(86)	
												Years Ed.	Infant	PreA	PreB	PreC	E.T.	Total
2 years of college												1-4	13.6	0.0	0.0	21.6	23.8	15.2
4 years of college												5-8	31.7	55.5	18.2	21.4	33.4	30.2
graduate school												9-11	22.6	44.4	45.5	26.0	23.8	29.1
												12	18.2	0.0	36.4	17.4	14.3	17.4
												> 12	13.6	0.0	0.0	0.0	4.8	8.2

- 2 years of college
- 4 years of college
- graduate school

8. ¿Cuál fue el último año que su esposo cumplió en la escuela?

- 1
 - 2
 - 3
 - 4
 - 5
 - 6
 - 7
 - 8
 - 9
 - 10
 - 11
 - 12
 - No sé
- 2 años de colegio
 - 4 años de colegio
 - graduate school (más de 4 años de colegio)

9. How well can you read Spanish? 1. Not at all _____
 2. Some _____
 3. Very well _____
- How well can you read English? 1. Not at all _____
 2. Some _____
 3. Very well _____
9. ¿Qué bien puede leer español? 1. No puedo leer _____
 2. Bien _____
 3. Muy bien _____
- ¿Qué bien puede leer inglés? 1. No puedo leer _____
 2. Bien _____
 3. Muy bien _____
10. Can your husband read Spanish? 1. Yes _____ 2. No _____ 3. Do not know _____
- | | (23)
Infant | (9)
PreA | (13)
PreB | (26)
PreC | (29)
E.T. | (100)
Total |
|--------|----------------|-------------|--------------|--------------|--------------|----------------|
| Yes | 73.9 | 44.4 | 76.9 | 69.2 | 69.0 | 69.0 |
| No | 17.4 | 44.4 | 15.4 | 23.1 | 17.2 | 21.0 |
| Unsure | 8.7 | 11.1 | 7.7 | 7.7 | 13.8 | 10.0 |
- Can your husband read English? 1. Yes _____ 2. No _____ 3. Do not know _____
- | | (23.9)
Infant | (9)
PreA | (13)
PreB | (26)
PreC | (29)
E.T. | (99)
Total |
|--------|------------------|-------------|--------------|--------------|--------------|---------------|
| Yes | 77.3 | 66.7 | 92.3 | 57.7 | 69.0 | 70.1 |
| No | 22.7 | 22.2 | 7.7 | 34.6 | 24.1 | 24.2 |
| Unsure | 0.0 | 11.1 | 0.0 | 7.7 | 6.9 | 5.1 |
10. ¿Puede leer español su esposo? 1. Sí _____ 2. No _____ 3. No sé _____
- ¿Puede leer inglés su esposo? 1. Sí _____ 2. No _____ 3. No sé _____
11. Did you always live in San Antonio? 1. Yes _____ 2. No _____

If the answer is "yes", you do not need to answer questions No. 13, 14, and 15.

11. ¿Siempre ha vivido usted en San Antonio? 1. Sí _____ 2. No _____
- | | (25)
Infant | (9)
PreA | (13)
PreB | (27)
PreC | (29)
E.T. | (103)
Total |
|-----|----------------|-------------|--------------|--------------|--------------|----------------|
| Yes | 60.0 | 55.6 | 53.8 | 37.0 | 48.3 | 49.5 |
| No | 40.0 | 44.4 | 46.2 | 63.0 | 51.7 | 50.5 |

Si la respuesta es "sí", no tiene que contestar las preguntas No. 13, 14, y 15.

12. If not, when did you move to San Antonio? (Please circle one number)

1. Less than 1 year ago
2. 1-2 years ago
3. 3-5 years ago
4. 6-10 years ago
5. More than 10 years ago

12. (Sí respondió "no",) ¿cuándo llegó a San Antonio?

- | | (10)
Infant | (4)
PreA | (6)
PreB | (17)
PreC | (15)
E.T. | (52)
Total |
|-------------------------|----------------|-------------|-------------|--------------|--------------|---------------|
| 1. Hace menos de un año | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2. Hace 1-2 años | 10.0 | 0.0 | 0.0 | 5.9 | 6.7 | 5.8 |
| 3. Hace 3-5 años | 40.0 | 25.0 | 16.7 | 23.5 | 26.7 | 26.9 |
| 4. Hace 6-10 años | 20.0 | 50.0 | 16.7 | 11.8 | 26.7 | 21.2 |
| 5. Hace más de 10 años | 30.0 | 25.0 | 66.7 | 58.8 | 40.0 | 46.2 |

13. Where did you live before you moved to San Antonio?

	(10) Infant	(4) PreA	(6) PreB	(16) PreC	(15) E.T.	(51) Total
1. Country <u>(Mexico)</u>	70.0	100.0	66.7	43.8	60.0	60.8
2. Another city or town in Texas	30.0	0.0	33.3	37.5	33.3	31.4
3. Out of Texas but in country	0.0	0.0	0.0	18.8	6.7	7.8

13. ¿Dónde vivió antes de venir a San Antonio?

1. País _____
2. Ciudad o pueblo _____

14. Do you have plans to return to live at _____? (place indicated in your answer to question No. 14.)

	(8) Infant	(3) PreA	(6) PreB	(16) PreC	(15) E.T.	(48) Total
1. Yes _____	12.5	0.0	0.0	0.0	0.0	2.1
2. No _____	87.5	100.0	100.0	100.0	100.0	97.9

14. ¿Piensa usted regresar para vivir a _____? (sitio que indicó en la respuesta No. 14.)

1. Sí _____
2. No _____

15. Does your family ever visit relatives who do not live in San Antonio?

	(24) Infant	(9) PreA	(13) PreB	(27) PreC	(29) E.T.	(102) Total
1. Yes _____	45.8	66.7	100.0	55.6	48.3	57.8
2. No _____	54.2	33.3	0.0	44.4	51.7	42.2

15. ¿Va su familia a visitar parientes que no viven en San Antonio?

1. Sí _____
2. No _____

16. What is your occupation? _____

16. ¿Qué es su ocupación? _____

17. If you work, what language do you speak on the job? (Please circle one number.)

	(2) Infant	(0) PreA	(2) PreB	(7) PreC	(4) E.T.	(15) Total
1. Only Spanish	50.0	0.0	0.0	28.6	0.0	20.0
2. Mostly Spanish	0.0	100.0	42.9	25.0	40.0	
3. Only English	0.0	0.0	0.0	0.0	0.0	
4. Mostly English	50.0	0.0	0.0	50.0	20.0	
5. English and Spanish equally	0.0	0.0	28.6	25.0	20.0	

17. Si trabaja, ¿qué idioma habla en el trabajo?

1. Solamente español
2. La mayoría español
3. Solamente inglés
4. La mayoría inglés
5. Inglés y español igualmente

18. What is your husband's occupation? _____

18. ¿Qué es la ocupación de su esposo? _____

19. If your husband works, what language does he speak on the job? (Please circle one number.)

	(22) Infant	(8) PreA	(12) PreB	(25) PreC	(21) E.T.	(88) Total
1. Only Spanish	13.6	37.5	0.0	36.0	28.6	23.9
2. Mostly Spanish	13.6	12.5	25.0	16.0	4.8	13.6
3. Only English	4.5	0.0	16.7	8.0	0.0	5.7
4. Mostly English	36.4	12.5	0.0	12.0	9.5	15.9
5. English and Spanish equally	22.7	25.0	58.3	12.0	28.6	26.1
6. Don't know	9.1	12.5	0.0	16.0	28.6	14.8

19. Si su esposo trabaja, ¿qué idioma habla en el trabajo?

1. Solamente español
2. La mayoría español
3. Solamente inglés
4. La mayoría inglés
5. Inglés y español igualmente
6. No sé

20. When you talk to your husband, which language do you speak? (Please circle one number.)

	(23) Infant	(9) PreA	(13) PreB	(22) PreC	(20) E.T.	(87) Total
1. Only Spanish	56.5	55.6	53.8	72.7	60.0	60.9
2. Mostly Spanish	26.1	33.3	15.4	4.5	15.0	17.2
3. Only English	0.0	0.0	0.0	0.0	0.0	0.0
4. Mostly English	4.3	11.1	0.0	9.1	0.0	4.6
5. English and Spanish equally	13.0	0.0	30.8	13.6	25.0	17.2

20. Cuando habla con su esposo, ¿en qué idioma habla?

1. Solamente español
2. La mayoría español
3. Solamente inglés
4. La mayoría inglés
5. Inglés y español igualmente

21. When you talk to your children, do you speak English or Spanish? (Please circle one number.)

	(24) Infant	(9) PreA	(13) PreB	(27) PreC	(29) E.T.	(102) Total
1. Only Spanish	16.7	53.6	46.2	29.6	44.8	35.3
2. Mostly Spanish	33.3	11.1	15.4	18.5	13.8	19.6
3. Only English	0.0	0.0	0.0	3.7	3.4	2.0
4. Mostly English	12.5	11.1	0.0	11.1	3.4	7.8
5. English and Spanish equally	37.5	22.2	38.5	37.0	34.5	35.3

21. Cuando habla con sus niños, ¿en qué idioma habla?

1. Solamente español
2. La mayoría español
3. Solamente inglés
4. La mayoría inglés
5. Inglés y español igualmente

22. What language do your children speak to you? (Please circle one number.)

	(24) Infant	(9) PreA	(13) PreB	(27) PreC	(29) E.T.	(102) Total
1. Only Spanish	16.7	44.4	15.4	29.6	41.4	29.4
2. Mostly Spanish	29.2	0.0	23.1	18.5	10.3	17.6
3. Only English	4.2	0.0	0.0	7.4	3.4	3.9
4. Mostly English	8.3	11.1	7.7	11.1	13.8	10.8
5. English and Spanish equally	41.7	44.4	53.8	33.3	31.0	38.2

22. ¿En cuál idioma hablan sus niños cuando hablan con usted?

1. Solamente español
2. La mayoría español
3. Solamente inglés
4. La mayoría inglés
5. Inglés y español igualmente

23. What language do your children speak when they talk to their brothers and sisters?

	(19) Infant	(9) PreA	(13) PreB	(27) PreC	(28) E.T.	(96) Total
1. Only Spanish	15.8	22.2	0.0	7.4	17.9	12.5
2. Mostly Spanish	31.6	11.1	23.1	29.6	7.1	20.8
3. Only English	21.1	0.0	15.4	11.1	7.1	11.5
4. Mostly English	15.8	33.3	15.4	18.5	32.1	22.9
5. English and Spanish equally	15.8	33.3	46.2	33.3	35.7	32.3

23. ¿En cuál idioma hablan sus niños cuando hablan con sus hermanos y hermanas?

1. Solamente español
2. La mayoría español
3. Solamente inglés
4. La mayoría inglés
5. Inglés y español igualmente

27. Do any of your children watch Sesame Street on T.V.?

	(25) Infant	(9) PreA	(12) PreB	(27) PreC	(29) E.T.	(102) Total
Yes _____	44.0	11.1	66.7	63.0	41.4	48.0
No _____	52.0	88.9	33.3	29.6	37.9	43.1
Never Heard of program _____	4.0	0.0	0.0	7.4	20.7	8.8

27. ¿Algunos de sus niños miran Sesame Street en la T.V.? Sí _____ No _____
Nunca oyó del programa _____

28. Would you like a Spanish version of Sesame Street? Yes _____ No _____

28. ¿Le gustaría ver una version de Sesame Street en español? Sí _____ No _____
N=92 Yes=82.6% No=17.4%
Without E.T. N=67 Yes=89.6% No=10.4%

29. How far do you expect your daughters to go in school? (Please circle one number.)

	(18) Infant	(9) PreA	(12) PreB	(22) PreC	(24) E.T.	(85) Total
1. finish elementary school _____	0.0	0.0	0.0	0.0	0.0	0.0
2. finish junior high school _____	0.0	0.0	0.0	0.0	0.0	0.0
3. finish high school _____	16.7	33.3	50.0	13.6	41.7	29.4
4. finish 2 years of college _____	0.0	11.1	0.0	27.3	4.2	9.4
5. finish college _____	77.8	55.6	50.0	59.1	37.5	55.3
6. more than 4 years of college _____	5.6	0.0	0.0	0.0	16.7	5.9

29. ¿Cuánto espera que progresen sus hijas en la escuela?

1. acabar la primaria
2. acabar junior high school
3. acabar high school
4. acabar 2 años de colegio
5. acabar colegio
6. más de 4 años de colegio

30. How far do you expect your sons to go in school? (Please circle one number.)

	(19) Infant	(9) PreA	(13) PreB	(23) PreC	(24) E.T.	(88) Total
1. finish elementary school _____	0.0	0.0	0.0	0.0	0.0	0.0
2. finish junior high school _____	5.3	0.0	0.0	0.0	0.0	1.1
3. finish high school _____	5.3	33.3	30.8	4.3	41.7	21.6
4. finish 2 years of college _____	5.3	11.1	7.7	8.7	0.0	5.7
5. finish college _____	73.7	55.6	61.5	73.9	33.3	59.1
6. more than 4 years of college _____	10.5	0.0	0.0	13.0	25.0	12.5

30. ¿Cuánto espera que progresen sus hijos en la escuela?

1. acabar la primaria
2. acabar junior high school
3. acabar high school
4. acabar 2 años de colegio
5. acabar colegio
6. más de 4 años de colegio

31. When your daughters are grown up, what kind of jobs do you expect them to have? (Give an example.) _____

31. Cuando sus hijas crezcan ¿qué tipo de trabajo espera que tengan? (Dé un ejemplo.) _____

32. When your sons are grown up, what kind of jobs do you expect them to have? Give an example.) _____

32. Cuando sus hijos crezcan ¿qué tipo de trabajo espera que tengan? (Dé un ejemplo.) _____

		Agree De Acuerdo		Disagree No estoy de acuerdo	Don't know No Se
33.	Children should listen to the teacher and do what she says.	(22) Infant	96.0	4.0	0.0
		(9) PreA	100.0	0.0	0.0
		(13) PreB	100.0	0.0	0.0
33.	Los niños deben de escuchar la maestra y hacer lo que se les dice.	(26) PreC	100.0	0.0	0.0
		(29) E.T.	96.6	0.0	3.4
		(99) Total	98.1	1.0	1.0
34.	The school is often to blame when students do not like school.	Infant	24.0	64.0	12.0
		PreA	11.1	77.8	11.1
		PreB	30.8	61.5	7.7
34.	La mayoría del tiempo, la escuela tiene la culpa si al estudiante no le gusta la escuela.	PreC	11.1	81.5	7.4
		E.T.	24.1	72.4	3.4
		Total	20.4	71.8	7.8
35.	Some of my teachers helped me to be a better person.	Infant	88.0	8.0	4.0
		PreA	88.9	0.0	11.1
		PreB	100.0	0.0	0.0
35.	Algunos de mis maestros me ayudaron ser una persona mejor.	PreC	96.2	3.8	0.0
		E.T.	85.2	40.0	7.4
		Total	91.0	5.0	4.0
36.	It seems to me now that my teachers did not know what they were talking about.	Infant	24.0	72.0	4.0
		PreA	44.0	33.3	22.2
		PreB	7.7	76.9	15.4
36.	Ahora me parece que mis maestros no sabían de lo que hablaban.	PreC	15.4	84.6	0.0
		E.T.	14.8	81.5	3.7
		Total	19.0	75.0	6.0
37.	I would like to see Spanish taught in the schools.	Infant	84.0	16.0	0.0
		PreA	77.8	0.0	22.2
37.	Me gustaría ver el español enseñado en las escuelas.	PreB	100.0	0.0	0.0
		PreC	92.6	7.4	0.0
		E.T.	86.2	13.8	0.0
		Total	88.3	9.7	1.9
38.	Most teachers treat the children in their classrooms fairly.	Infant	84.0	12.0	4.0
		PreA	66.7	11.1	22.2
		PreB	92.3	0.0	7.7
38.	La mayoría de los maestros tratan a los niños justamente en las classes.	PreC	96.3	3.7	0.0
		E.T.	65.5	17.2	17.2
		Total	81.6	9.7	8.7
39.	Teachers do not make the pupils behave as well as they should.	Infant	36.0	60.0	4.0
		PreA	44.4	33.3	22.2
		PreB	23.1	69.2	7.7
		PreC	29.6	70.4	0.0
39.	Maestros no hacen que los estudiantes se porten tan bien como deben de portarse.	E.T.	48.3	41.4	10.3
		Total	36.9	56.3	6.8

		Agree <u>De Acuerdo</u>	Disagree <u>No estoy de acuerdo</u>	Don't know <u>No sé</u>
40.	Parents and school must work together to help the child with school matters.	Infant 100.0 PreA 88.9 PreB 100.0 PreC 100.0 E.T. 100.0 Total 100.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 1.0 0.0 0.0 0.0 0.0
40.	Los padres y la escuela tienen que trabajar juntos para ayudar al niño en asuntos de la escuela.			
41.	Teaching Spanish in the schools makes it harder for the child to learn good English.	Infant 12.0 PreA 33.3 PreB 0.0 PreC 14.8 E.T. 24.1 Total 16.5	84.0 33.3 100.0 81.5 69.0 19.4	4.0 33.3 0.0 3.7 6.9 1.9
41	Enseñando el español en las escuelas hace que sea más difícil para que el niño aprenda bien el inglés.			
42.	Going to school was a worthwhile experience for me.	Infant 88.0 PreA 100.0 PreB 100.0 PreC 100.0 E.T. 77.8 Total 91.0	12.0 0.0 0.0 0.0 22.2 9.0	
42.	Asistiendo la escuela fue una experiencia que valió la pena para mí.			
43.	Most people will learn more by working four years than by going to school four years.	Infant 4.0 PreA 22.2 PreB 15.4 PreC 11.1 E.T. 6.9 Total 9.7	88.0 66.7 76.9 85.2 86.2 83.5	8.0 11.1 7.7 3.7 6.9 6.8
43.	La mayoría de la gente aprende más si trabaja por cuatro años en vez de asistir la escuela por 4 años.			
44.	There are times when teachers can not be blamed for getting mad at a child.	Infant 84.0 PreA 88.9 PreB 76.9 PreC 100.0 E.T. 100.0 Total 92.2	12.0 11.1 15.4 0.0 0.0 5.8	4.0 0.0 7.7 0.0 0.0 1.9
44.	Hay tiempos en que no se puede culpar a los maestros cuando se enojan con un niño.			
45.	Schools make a good effort in working with parents.	Infant 84.0 PreA 77.8 PreB 92.3 PreC 88.9 E.T. 96.6 Total 89.3	8.0 11.1 0.0 7.4 3.4 5.8	8.0 11.1 7.7 3.7 0.0 4.9
45.	Las escuelas hacen un buen esfuerzo en trabajando con los padres.			

		Agree De Acuerdo	Disagree No estoy de acuerdo	Don't know No sé
46.	Some boys and girls are always unlucky in school.	Infant 66.7 PreA 33.3 PreB 69.2 PreC 59.3 E.T. 62.1 Total 60.8	20.8 33.3 23.1 33.3 27.6 27.5	12.5 33.3 7.7 7.4 10.3 11.8
46.	Algunos niños y niñas tienen suerte en la escuela.			
47.	Our schools should teach more about the history of the Mexican-American.	Infant 72.0 PreA 88.9 PreB 100.0 PreC 80.9 E.T. 93.1 Total 87.4	4.0 0.0 0.0 7.4 3.4 3.9	24.0 11.1 0.0 3.7 3.4 8.7
47.	Nuestras escuelas deben de enseñar más de la historia del mexico-americano.			
48.	If a child does not do well in learning to read, most of the time it is because of the teacher.	Infant 8.0 PreA 55.6 PreB 0.0 PreC 25.9 E.T. 17.2 Total 18.4	88.0 22.2 76.9 74.1 72.4 72.8	4.0 22.2 23.1 0.0 10.3 8.7
48.	Si un niño no aprende a leer bien, la mayoría del tiempo es culpa de la maestra.			
49.	The best way to get a good job is to get a good education.	Infant 88.0 PreA 100.0 PreB 100.0 PreC 100.0 E.T. 100.0 Total 97.1	8.0 0.0 0.0 0.0 0.0 1.9	4.0 0.0 0.0 0.0 0.0 1.0
49.	El mejor modo de conseguir un trabajo bueno es conseguir una buena educación.			
50.	Visiting my child's school is worth my time.	Infant 68.0 PreA 88.9 PreB 100.0 PreC 100.0 E.T. 96.6 Total 90.3	4.0 0.0 0.0 0.0 3.4 1.9	28.0 11.1 0.0 0.0 0.0 7.8
50.	Visitar la escuela de mi niño es algo que vale la pena.			
51.	I want my child to like school.	Infant 96.0 PreA 100.0 PreB 100.0 PreC 100.0 E.T. 96.6 Total 98.1	4.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 3.4
51.	Yo quiero que le guste la escuela a mi niño.			
52.	What is going to happen to us will happen, so it does not matter how much education we have.	Infant 84.0 PreA 22.2 PreB 84.6 PreC 81.5 E.T. 79.3 Total 76.7	12.0 77.8 15.4 14.8 17.2 20.4	4.0 0.0 0.0 3.7 3.4 2.9
52.	Lo que nos va a pasar nos pasará, y no importa cuanta educación tenemos.			

		Agree <u>De Acuerdo</u>	Disagree <u>No estoy de acuerdo</u>	Don't know <u>No sé</u>
53. Many children would be better off if they left school after the eighth grade.	Infant PreA PreB PreC E.T. Total	4.0 11.1 0.0 3.7 3.4 3.9	96.0 44.4 100.0 96.3 93.1 91.3	0.0 44.4 0.0 0.0 3.4 4.9
53. Para muchos niños, sería mejor si dejaran la escuela después del ocho grado.				
54. Schools teach a lot of things that do not work out when you get on the job.	Infant PreA PreB PreC E.T. Total	36.0 66.7 46.2 40.7 55.2 46.6	48.0 22.2 46.2 51.9 37.9 43.7	16.0 11.1 7.7 7.4 6.9 9.7
54. Escuelas enseñan muchas cosas que no se aplican bien cuando empieza uno a trabajar.				
55. Parents should support the school in matters of child discipline.	Infant PreA PreB PreC E.T. Total	92.0 100.0 100.0 100.0 93.1 96.1	0.0 0.0 0.0 0.0 3.4 1.0	8.0 0.0 0.0 0.0 3.4 2.9
55. Los padres deben apoyar la escuela en asuntos de la disciplina de los niños.				
56. I never could seem to get to school on time.	Infant PreA PreB PreC E.T. Total	12.0 11.1 0.0 0.0 3.7 5.0	88.0 77.8 100.0 100.0 96.3 94.0	0.0 11.1 0.0 0.0 0.0 1.0
56. Yo nunca podía llegar a la escuela a tiempo.				
57. Teachers usually do the best they can in trying to teach what they should be teaching.	Infant PreA PreB PreC E.T. Total	96.0 66.7 100.0 92.6 93.1 92.2	4.0 11.1 0.0 7.4 6.9 5.8	0.0 22.2 0.0 0.0 0.0 1.9
57. Generalmente, los maestros hacen lo mejor que pueden para enseñar lo que deben de enseñar.				
58. Meetings of parents with school teachers, counselors, or principals are a waste of time.	Infant PreA PreB PreC E.T. Total	0.0 0.0 7.7 3.7 6.9 3.9	96.0 55.6 92.3 96.3 93.1 91.3	4.0 44.4 0.0 0.0 0.0 41.9
58. Juntas de padres con maestros, consejeros, o principales es tiempo perdido.				
59. I feel welcome at school.	Infant PreA PreB PreC E.T. Total	68.0 77.8 100.0 96.3 100.0 89.3	0.0 22.2 0.0 3.7 0.0 2.9	32.0 0.0 0.0 0.0 0.0 7.8
59. Me siento bienvenido en la escuela.				

		Agree De Acuerdo	Disagree- No estoy de acuerdo	Don't know No sé
60.	Having the children go to school in the summer is asking children to do too much.	Infant 32.0 PreA 22.2 PreB 15.4 PreC 0.0 E.T. 3.4 Total 12.6	68.0 77.8 84.6 100.0 96.6 87.4	
60.	Hacer que los niños asisten la escuela en el verano es demasiado para pedirles a los niños.			
61.	Most schools do not let the parents know enough about what is going on.	Infant 32.0 PreA 55.6 PreB 23.1 PreC 22.2 E.T. 34.5 Total 31.1	52.0 33.3 69.2 70.4 65.5 61.2	16.0 11.1 7.7 7.4 0.0 7.8
61.	La mayoría de las escuelas no informan bastante a los padres de lo que pasa en la escuela.			
62.	The schools are doing a good job today.	Infant 88.0 PreA 55.6 PreB 76.9 PreC 96.3 E.T. 93.1 Total 87.4	8.0 22.2 7.7 3.7 3.4 6.8	4.0 22.2 15.4 0.0 3.4 5.8
62.	Las escuelas estan haciendo un buen trabajo hoy.			
63.	Having the children attend special classes after school is asking children to do too much.			
63.	Hacer que los niños asisten classes especiales después de la escuela es demasiado para pedirles a los niños.	Infant 20.0 PreA 22.2 PreB 7.7 PreC 3.7 E.T. 0.0 Total 8.7	76.0 77.8 92.3 96.3 96.6 89.3	4.0 0.0 0.0 0.0 3.4 1.9
64.	Some people feel that most teachers do not want to be bothered by parents coming to see them. How do you feel about this?	Infant 20.0 PreA 11.1 PreB 30.8 PreC 11.1 E.T. 34.5 Total 22.3	60.0 44.4 69.2 88.9 55.2 66.0	20.0 44.4 0.0 0.0 10.3 11.7
64.	Alguna gente piensa que la mayoría de los maestros no les gusta que los molesten los padres que vienen a visitarlos en la escuela. ¿Qué opina usted?			

		Agree De Acuerdo	Disagree No estoy de Acuerdo	Don't know No se
65.	"Elementary schools that teach in both English and Spanish are a good thing for our local area." What do you think about this?	Infant 91.7 PreA 88.9 Pre8 100.0 PreC 92.6 E.T. 93.1 Total 93.1	8.3 0.0 0.0 3.7 6.9 4.9	0.0 11.1 0.0 3.7 0.0 2.0
65.	"El hecho de enseñar ingles y español en las escuelas de nuestra vecindad es una idea excelente." ¿Que piensa Ud. de esto?			
66.	"Most teachers probably like quiet children better than ones who are active and talk a lot." What is your opinion of this statement?	Infant 58.3 PreA 55.6 Pre8 30.8 PreC 29.6 E.T. 55.2 Total 46.1	33.3 11.1 61.5 48.1 41.4 41.2	8.3 33.3 7.7 22.2 3.4 12.7
66.	"Es probable que a la mayoría de los profesores les gusten más los niños callados y no los que son activos y que hablan demasiado." ¿Cuál es su opinion acerca esta afirmación?			
67.	"When children do not work hard in school, their parents are to blame." What is your opinion of this statement?	Infant 45.8 PreA 0.0 Pre8 38.5 PreC 48.1 E.T. 27.6 Total 36.3	45.8 44.4 46.2 44.4 69.0 52.0	8.3 55.6 15.4 7.4 3.4 11.8
67.	"Cuando los niños no hacen bien su trabajo en la escuela, es por culpa de los padres." ¿Cuál es su opinión acerca esta afirmación?			
68.	"Most teachers are good examples for my children to follow." What do you think about this?	Infant 91.3 PreA 77.8 Pre8 92.3 PreC 100.0 E.T. 96.6 Total 94.1	8.7 0.0 7.7 0.0 3.4 1.0	0.0 22.2 0.0 0.0 0.0 0.0
68.	"La mayoría de los maestros son buenos ejemplos que mis niños deben seguir." ¿Qué piensa Ud. de esto?			
69.	"Spanish should be taught by the parents rather than by the teacher." Do you agree or disagree with this?	Infant 8.3 PreA 0.0 Pre8 7.7 PreC 3.7 E.T. 13.8 Total 7.8	79.2 77.8 92.3 96.3 79.3 85.3	12.5 22.2 0.0 0.0 6.9 6.9
69.	"Los padres de familia y no los profesores en la escuela deben enseñar el español a los niños." ¿Está usted de acuerdo con esto?			

		Agree De Acuerdo	Disagree No de Acuerdo	Don't know No sé
70.	"Once in a while it should be OK for parents to keep their children out of school for a day for family matters."	Infant 40.0 PreA 77.8 PreB 76.9 PreC 25.9 E.T. 24.1 Total 39.8	56.0 22.2 23.1 70.4 72.4 57.3	4.0 0.0 0.0 3.7 3.4 2.9
70.	"De vez en cuando está bien si los padres de familia detienen los hijos fuera de la escuela por razones familiares."			

71. Have you noticed any differences in (child's name) since September, 1977? (For example: does he talk more now, did he grow, does he eat differently, is he more active, etc.?) What kinds of differences have you noticed?

71. ¿Ha notado usted alguna(s) diferencia(s) en (nombre del niño) desde septiembre, 1977? Es decir, ¿habla más ahora? ¿ha crecido? ¿come más? ¿es más activo?

Number of Persons Describing Change in Their Children's Development as Better, Worse or No Change

	INFANTS			PRESCHOOL									EDUCOTHERAPY								
	Better	Worse	No Change	B	W	N	B	W	N	B	W	N	B	W	N	B	W	N	B	W	N
Control	9	0	5	-	-	-	6	0	0	9	0	0	5	2	2						
Treatment Dropped	5	0	0	3	0	0	4	0	0	2	0	0	1	4	2						
Active	9	0	0	3	0	0	-	-	-	12	0	0	9	0	0						

(The following are for treatment families only)

72. What would you change about the _____ program? _____

<u>Infant</u>	<u>PreA</u>	<u>PreB</u>	<u>PreC</u>	<u>Educo-Therapy</u>
	Need more time		More days Longer hours Transportation more on time	More parental interaction

72. ¿Cuales cambios haria usted en el _____ programa? _____

73. What did you like about the _____ program? _____

<u>Infant</u>	<u>PreA</u>	<u>PreB</u>	<u>PreC</u>	<u>Educo-Therapy</u>
Abuelitas	Transportation			Occupies the mind Off the streets

73. ¿Qué le gusto a usted del _____ programa? _____

74. What do you think of these questions? _____

Most said okay, two said they were glad that someone was interested in
their opinions.

74. ¿Qué piensa de estas preguntas? _____

(Thank you for your time and cooperation)

(Gracias por su tiempo y su cooperación)

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